VENEZUELA ENVIRONMENTAL MARKET

CANADIAN EMBASSY
CONSULTORES AMBIENTALES 3C, CA.
JUNE 2000

TABLE OF CONTENT

FOREWORDS AUTHOR'S NOTE 1

INTRODUCTION 2

1. DIRECTION OF THE CHAVEZ GOVERNMENT: THE ANNOUNCED ACTIONS 4

1.1 OFFICIAL VISION OF THE STATE ROLE IN THE ECONOMY 4

1.2 OFFICIAL EXPECTATIONS FOR THE ECONOMIC PROGRAM 4

1.3 ECONOMIC PLANS FOR THE YEAR 2000 5

1.3.1 The Long Term Industrial Plan (2000 – 2020) 5
1.3.1.1 General Objective 5
1.3.1.2 Specific Objectives 6
1.3.1.3 Strategies 6
1.3.1.4 Financial Requirements of the Plan 6
1.3.1.5 Anticipated Results 8
1.3.2 The Agricultural Plan 10
1.3.3 Housing Plan 11
1.3.4 The National Infrastructure Plan 11
1.3.4.1 Strategic Approach 11
1.3.4.2 Budgetary Approach 12
1.3.5 Production and Trade 13
1.3.5.1 Strategic Approach 13
1.3.5.2 Budgetary Approach 13

1.4 THE MAIN OBJECTIVES AND STRATEGIES BY SECTOR 14

1.4.1 The Oil Sector 14
1.4.2 The Electric Sector 14
1.4.2.1 General Objective 14
1.4.2.2 Strategies 14
1.4.3 The Tourism Sector 15
1.4.3.1 General Objectives 15
1.4.3.2 Strategies 15
1.4.4 The Agricultural Sector 15
1.4.4.1 General Objectives 15
1.4.4.2 Strategies 15
1.4.5 The Construction Sector 16
1.4.5.1 General Objectives 16
1.4.5.2 Strategies 16
1.4.6 The Telecommunications Sector 17

1.5 PRIVATIZATION 18

1.5.1 The Electric Power Sector 18
1.5.2 The Aluminium Sector 18
1.5.3 Other 18

2. THE LEGAL FRAMEWORK 19

2.1 THE ENVIRONMENTAL LAWS 19

2.1.1 The Organic Law of the Environment (*Ley Orgánica del Ambiente*) 19
2.1.2 The Organic Law of Administrative Procedures (*Ley Orgánica de Procedimientos Administrativos LOPA*) 19
2.1.3 The Organic Law for Territory Planning (*Ley Orgánica para la Ordenación del territorio*) 19
2.1.4 Organic Law for Urban Planning *(Ley Orgánica de Ordenación Urbanística)* 20
2.1.5 The Law of Forests, Soils and Waters (*Ley Forestal de Suelos y Aguas)* 20
2.1.6 The Law for Protection of Wildlife (*Ley de Protección de la Fauna Silvestre*) 21
2.1.7 The Environmental Penal Law (*Ley Penal del Ambiente*) 21
2.1.8 Technical Regulations (*Normas Técnicas*) 21

2.2 INTERNATIONAL AGREEMENTS 26

2.3 PROPOSED LEGISLATION 28

3 MARKET OVERVIEW 29

3.1 MINISTERIO DEL AMBIENTE Y DE LOS RECURSOS NATURALES (MARN) 29

3.1.1 Strategic Approach 29
3.1.2 Functions 30
3.1.3 Structure 31
3.1.4 Organization Chart (year 2000) 32
3.1.5 Guidelines for Project Approval 34
3.1.6 Budget Year 2000 35
3.1.7 How to Register at MARN 36
3.1.7.1 Consulting Companies 36
3.1.7.2 Air Laboratories 37
3.1.7.3 Water Laboratories 37
3.1.7.4 Waste Laboratories 37
3.1.7.5 Storage of Non Radioactive Hazardous Waste 38
3.1.7.6 Transportation of Non Radioactive Hazardous Waste 39
3.1.7.7 Non Radioactive Hazardous Waste Treatment 39
3.1.7.8 Final Disposal of Non Radioactive Hazardous Waste 40
3.1.8 Companies Registered at MARN 40

3.2 PETROLEOS DE VENEZUELA, S. A. - PDVSA 40

3.2.1 Overview 40

3.2.2 Corporate Organizational Structure 43
3.2.3 Opening Process (*Apertura*) 43
3.2.4 Private Investment 46
3.2.5 Exploration Activities 46
3.2.6 Gas Development 47
3.2.7 Oil Opening Projects 47
3.2.8 PDVSA Refining System 49
3.2.9 Orimulsion® 50
3.2.10 New Projects 51
3.2.11 Petrochemistry 52
3.2.12 Coal 52
3.2.13 Environment 52
3.2.14 Services 53
3.2.15 PDVSA's 2000-2009 Business Plan 54
3.2.16 How to Register at PDVSA 63

3.3 HEAVY INDUSTRIES – GUAYANA REGION 66

3.4 URBAN INDUSTRIES - CENTRAL REGION 69

3.6 FOREIGN DIRECT INVESTMENT IN HYDROCARBONS, PETROCHEMICAL & MINING.

1989-1998 75

3.7 THE ELECTRICAL SECTOR 76

3.8 THE WATER SECTOR 78

3.8.1 Investment opportunities 78
3.8.2 Decentralization System 789
3.8.3 Environmental Considerations 79
3.8.4 Current Structure of the National Water System 80
3.8.5 Regional Projects - External Loans 1997-2000 81
3.8.6 Investment – Drinking Water & Sanitation, 1991-2006 83

3.9 OTHERS PRIVATE SECTOR 84

4. STEPS TO DOING BUSINESS IN VENEZUELA 85

4.1 LEGAL FRAMEWORK 85

4.1.1 Foreign Investment 86
4.1.2 Company Classification 88
4.1.3 Business Structures 88

4.2 LEGAL PROTECTION FOR INVESTMENTS 90

4.3 HOW TO REGISTER AT OCEI (OFICINA CENTRAL DE ESTADISTICAS E INFORMATICA) 91

4.4 BIDDING BY LAW 92

4.5 VISA ISSUANCE REQUIREMENTS 93

5. BUSINESS OPPORTUNITIES 95

5.1 GOVERNMENT BUDGET STRUCTURES 95

5.2 VENEZUELAN PROJECTS FINANCED BY MULTILATERAL ORGANIZATIONS 97

5.2.1 Venezuela-Inparques Project-World Bank #VEPA8237 (1995) 98
5.2.2 Venezuela-Environment and Cartography Project- World Bank #VEPE35743 (1997) 100
5.2.3 Venezuela-Agricultural Extension Project - World Bank # VEPA8222 (1994) 105
5.2.4 Programme for Low-Income Housing Solutions - IDB #928/OC-VE (1996) 105
5.2.5 Caruachi Hydro-Electric Project-IDB #788/OC-VE (1993) 106
5.2.6 Control of Valencia Lake Level and Supplementary Works - IDB # VE/0079 (1995) 107
5.2.7 National Urban Transport Program - IDB # 818/OC-VE (1994) 108
5.2.8 Support Program for Initiatives and Management by Civil Community Organizations (PAIS) 110
5.2.9 The Agricultural Plan - IDB 111
5.2.10 Corporacion Andina de Fomento (ADC – The Andean Development Corporation), Venezuelan Projects 111

5.3 PROJECTS UNDER IMPLEMENTATION (2/29/2000), CHART 116

5.4 OTHER GOVERNMENT AGENCIES 117

5.4.1 FIDES 117

MAP OF INVESTMENT NEEDS IN VENEZUELA 118

5.4.2 FONVIS 119

5.5 RECONSTRUCTION OF AREAS DAMAGED BY THE DECEMBER 1999 FLOODING 120

BIBLIOGRAPHY
SCHEDULE A MARN MINISTRY & DIRECTOR'S MARCH 2000
SCHEDULE B COMPANIES REGISTERED AT MARN MARCH 2000
SCHEDULE C CVG - ENVIROMENTAL INVESTMENTS 1999-2000
SCHEDULE D MINISTRY EXPENDITURES

FOREWORDS AUTHOR'S NOTE

This market study was written by Consultores Ambientales 3C, C.A. It was produced for the Canadian Embassy, Caracas, Venezuela and copyright is held by the Government of Canada.

The information used in this report has been compiled from a variety of sources (ministries, government offices, private sector, press conferences and newspapers). Limited official statistical information is available to the public at large and limited efforts have been made by the Government of Venezuela to promote an improved awareness of environmental issues. The information currently being collected by various Venezuelan agencies is not easily accessible, integrated, classified, sorted, nor quality assured. Ultimately, the authors have used the best information available to them, but statistical imperfections are expected.

All information in this market study is current at the time of writing. However, it is important to point out that the political situation in Venezuela is dynamic, and that changes in the development policies and the operational plans of the Chavez government may occur in the spring of 2000 due to the Vargas disaster or the political campaign leading up to elections in 2000.

The authors strongly recommend that interested parties verify the information herein to their own satisfaction and consult with competent advisors before making a decision to proceed.

June 2000

INTRODUCTION

Venezuela presents significant opportunities for Canadian environmental companies. Important environmental investments and programs are moving forward spurred by the rebound of the economy. The Government of Venezuela is focusing efforts on improving the environmental regulatory and institutional structure that will set the long-term basis for the development of an environmental marketplace.

Some 92% of Venezuela´s estimated 21.4 million inhabitants live in urban areas. Approximately 31% of the population lives below the poverty line. Venezuela´s major environmental issues include; (i) deteriorating water and air quality, largely due to industrial pollution; (ii) inadequate solid and toxic waste disposal; (iii) deteriorating landscape and environmental contamination as a result of mining; (iv) coastal marine waters contamination; (v) deforestation; (vi) loss of biodiversity; and (vii) land degradation including soil erosion.

Problems of access to basic urban services, such as electricity, sewer systems, water supply, solid waste collection, drainage and paved roads and pedestrian paths, have contributed significantly to the persistence of poverty, particularly in marginal urban settlements which house about 41% of the country's total population. Levels of access to sanitation, for example, are comparable to those in Honduras, which has less than one-fifth of Venezuela´s per capita income. Some 83% of urban Venezuelans have access to potable water, and some 50% are connected to a sewer system, but the situation is deteriorating. Despite relatively good overall coverage rates, water supply and sewer (WS&S) services quality is poor, and the sector has largely failed to provide reliable and efficient service: water supply is characterised by widespread recurring rationing during the dry season months, low system pressure, questionable water quality, high unaccounted-for water, and inadequate customer service. A clear indication of the decay of urban services is the re-appearance, after more than 25 years of its apparent eradication, of water borne diseases such as cholera and dengue. Current financing arrangements are not sustainable. In most municipalities, charges for services such as water supply and solid waste management cover less than 30% and 20% respectively of actual operating costs.

According to a survey of the opinion leaders in Venezuela, the following urban environmental issues are serious because they affect a large number of people:

- Lack of municipal and industrial wastewater treatment: A high percentage of the municipal wastewater is being discharged without treatment directly into rivers, and coastal marine waters.

- Management and final disposal of toxic waste: Nearly 2000 companies generate approximately 600,000 tonnes of hazardous waste annually. The lack of legislation and guidelines for the

management of toxic waste, and of final disposal facilities, has resulted in an uncertain and expensive business environment, and in additional risk for society.

- Management of solid waste: Approximately 4.4 million tonnes of solid waste are generated annually in Venezuela. The lack of waste disposal and recycling facilities results not only in poor sanitary conditions and environmental degradation, but also neglect business opportunities such as cleaner technologies and adoption of ISO 14000 guidelines.

- Air pollution: The poor state of the cars and buses and the continuing use of leaded gasoline contributes to poor air quality in many Venezuelan urban centres. In addition, air emissions levels of over 30% of industrial companies are above the permissible standards, thus contributing significantly to air pollution in urban centres.

The main rural environmental issues are:

- Soil erosion: Soil erosion is primarily caused by mining and forestry activities in the Orinoco region. The steep slope of the terrain in many parts of the country aggravates these problems. In the Andes region the estimated loss of soil reaches 300 tonnes/ha.

- Deforestation as a result of agricultural activities: The annual deforestation rate is above 200,000 ha. To understand the magnitude of the issue, the total forest area affected by fires from 1978 to 1990 was just over 54,000 ha.

- Water pollution: The water quality of some important rivers (e.g., Tuy, Yaracuy and Neveri), lakes (e.g., Valencia and Maracaibo), and marine waters (e.g., Litoral Central), is deteriorating as a result of mining and agricultural activities, and the lack of wastewater treatment in population centres.

- Loss of wetlands and biodiversity caused by tourism development and other human activities.

The inauguration of President Hugo Chavez in February 1999 began a new era for Venezuela. His platform revolves around major political change that he promises will lead to the development of a system of social justice combined with a legal and fiscal framework that will encourage the participation of private investment in all sectors of the economy.

Finally, when considering the Venezuelan environmental market, it is a critical to keep in mind the importance of the petroleum sector to the economy. The petroleum industry accounts for 75% of exports earnings and 50% of government income. In 1999 GDP per capita was US$3,660. The state oil company Petroleos de Venezuela, SA. (PDVSA) is the sixth largest oil company in the world. The petroleum extraction, transportation, and processing sectors are potentially very highly polluting.

1. DIRECTION OF THE CHAVEZ GOVERNMENT: THE ANNOUNCED ACTIONS

The election of President Chavez in late 1998 resulted in a political process that fully occupied the attention and energies of the Government of Venezuela throughout 1999. The process included, amongst other events, the abolition of Congress and the adoption of a new Constitution. The approval of the new constitution in December of 1999 capped the initial phase of political reform. The Government of Venezuela then made a series of official and unofficial announcements, especially during the first weeks of January, 2000, in which it delineated its economic and social action plan, particularly for the short term. This section of the market study reviews the principal declarations and announcements made by the President and other high-ranking government officials.

1.1 OFFICIAL VISION OF THE STATE ROLE IN THE ECONOMY

The role of the state in the economy is centred in the protection of the general interest of the population, the promotion of private economic activities and the regulation of the intervention of the economic agents to avoid the disloyal competence. At the same time, and outside of the Economic Program 1999-2004 (*Programa Economico*), the State will stimulate the growth of the physical and human capital in Venezuela through policies designed to stimulate domestic and foreign investment and through the creation of "rules of the game" that guarantee the judicial security of risk capital invested in the process of economic transformation.

Areas of State responsibility, in accordance with the above policies, will be outsourced to the private sector where private management can be expected to equal or better the achievements of public sector management.

1.2 OFFICIAL EXPECTATIONS FOR THE ECONOMIC PROGRAM

The public sector is expected to create the necessary conditions to increase the effective and sustained participation of the national productive sector in the development process, participation that is fundamental in the transition from a rent-based economy to a production-based economy. For this reason, the Economic Program of Transition 1999-2000 calls for the participation of the national productive sector in the Strategic Plan of Public Investments. In this scheme, the national private sector faces the necessity of creating the required macro-economic conditions that will motivate national and foreign private investment on a solid and sustained basis.

For this, the official economic program includes a draft series of specific actions for achieving monetary, financial and stock market stability. The action list has, as its central pivot, a prudent fiscal policy with commitments for reforms on expenses, rates and price adjustments of public goods and services, as well as the effective activation of the Fund of Macro-Economic Stabilisation. The plan is designed to signal the government's determination to end macro-economic instability.

The model of development proposed includes the injection and the promotion of national and international private capital in the growth plans (plans that must be developed in harmony with the environment) and in the execution of projects in specific and concrete areas that have been catalogued by the State as strategic for the national development.

The development model includes defined areas of productive activities, including the development of large numbers of specific projects and specidfic goals for project development and consolidation. In addition, the development model anticipates the stimulation of investment of national and external private capital and the reactivation of the specific productive sectors.

1.3 ECONOMIC PLANS FOR THE YEAR 2000

The Government of Venezuela formally announced that the year 2000 will be the year of economic reactivation in Venezuela. To that end, the President, in his annual message to the country following his first full year as President, outlined economic goals and the measures intended to achieve the goals. The macro-economic goals delineated by the President are:

- Reduction in the rate of inflation to the range of 15 to 17%;
- GDP growth of 2.2%;
- Reduction in the unemployment rate of 2%;
- Carry over the fiscal deficit from the 15 to the 2%; and
- Increase Venezuelan international reserves to US$16 billion.

The measures and concrete fiscal incentives announced are:

- 80% tax reduction for new investments in the agricultural sector;
- 70% tax reduction for new projects in the tourism sector; and
- 10% tax reduction for new construction, telecommunications, environment and technology-based investments.

1.3.1 The Long Term Industrial Plan (2000 – 2020)

Specifically for the industrial sector, the Government of Venezuela announced its Plan of National Re-industrialization. With a budget of US$3.832 billion, the Plan includes the following elements:

1.3.1.1 General Objective

Propagate an industrial policy, established jointly with the private sector, focused on the re-industrialization of the country as measured by a sustained growth in GDP, sustained productive

employment and in the democratization of the wrokplace, as a real basis to improve the quality of life of Venezuelan citizens.

1.3.1.2 Specific Objectives

- Promotion and stimulation of growth in industrial density (the number of manufacturing enterprises per 1000 head of population)
- Strengthening of the existing industrial capacity (develop competitiveness).

1.3.1.3 Strategies

- As much trade as possible and only as much State intervention as necessary;
- The economic priority is to reduce inflation; and
- Help industrial activity orient itself towards converting comparative advantages into competitive advantages.

The strategies and instruments to be applied in the year 2000, with a public investment of US$702 million, are:

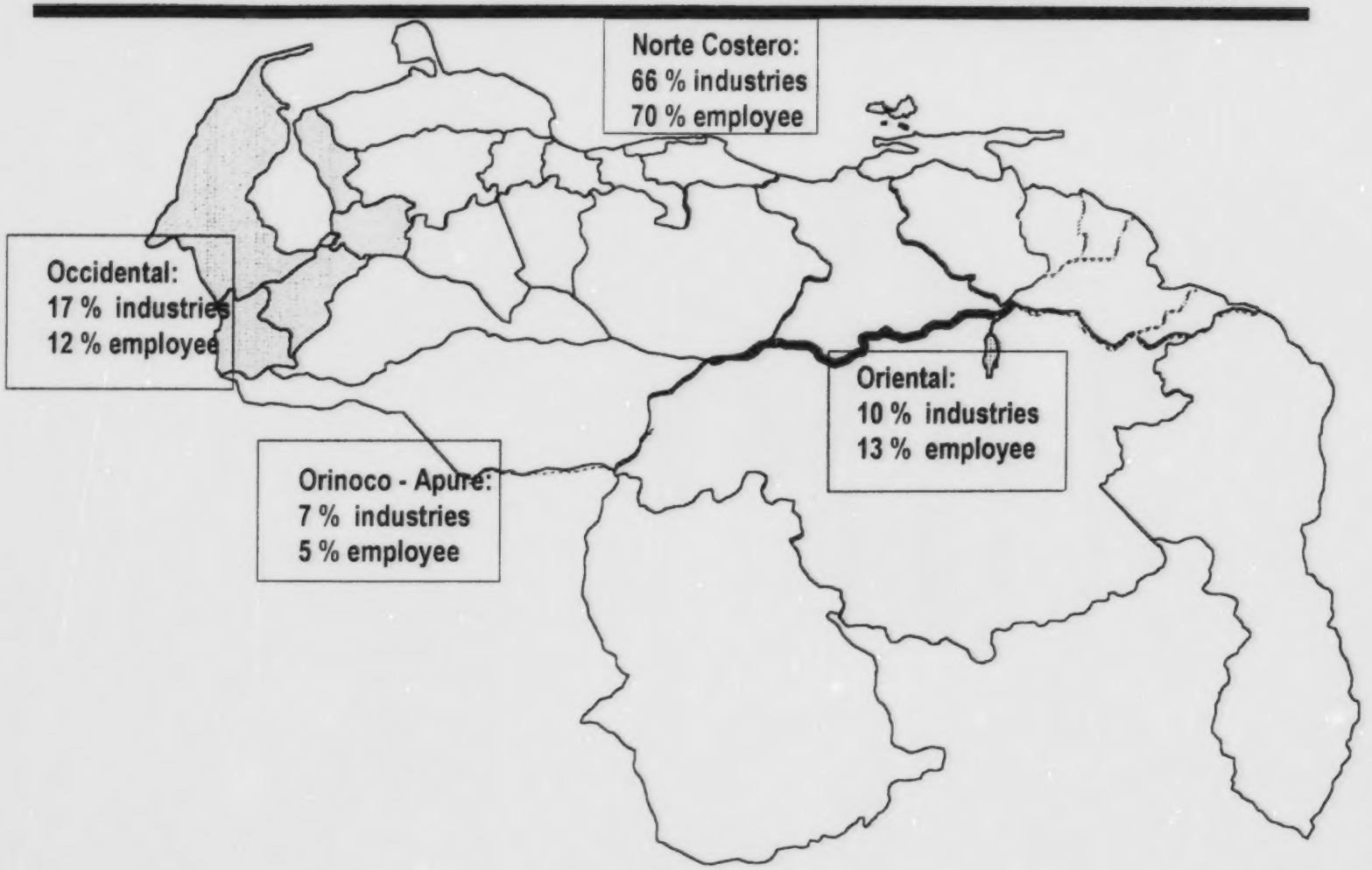
- State procurement policy. Example: modification of bidding procedures to concede preferences to national producers and stimulate small and medium enterprises;
- Export incentives for high value-added and labour intensive goods. Example: creation of the trustee in the Fund of Investments of Venezuela for technical support;
- Stimulation of productive employment creation. Example: State payment of the employers' share of social insurance costs;
- Financial and technical support to new employers. Example: new creative projects for the PYME;
- Rehabilitation and development of industrial parks. Example: planned reactivation of 10 industrial parks from a forecast total of 100;
- Designation of US$15 million for PYME credits; and
- Creation of the National Institute of Industrial Development to increase industrial competitiveness.

1.3.1.4 Financial Requirements of the Plan

The forecast programs for 2000-2005 are:

1. State procurement policy
2. Export incentives for high value-added and labour intensive goods
3. Stimulation of productive employment creation
4. Financial support for new enterprises
5. Rehabilitation and development of industrial parks
6. Consolidation of credits for the small and medium industry

MAJOR INDUSTRIAL REGIONS



7. Support for competitive and productive industrial development

INDUSTRIAL PLAN. FINANCIAL REQUIREMENTS (US$ MM)

PROGRAM	YEAR						
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**TOTAL**
1	300	250	200	180	150	130	**1.210**
2	250	275	300	330	360	400	**1.915**
3	100	65	50	40	30	30	**315**
4	20	35	35	25	25	25	**165**
5	10	10	10	10	10	10	**60**
6	17	20	25	25	25	25	**137**
7	5	5	5	5	5	5	**30**
Total	**702**	**660**	**625**	**615**	**605**	**625**	**3.832**

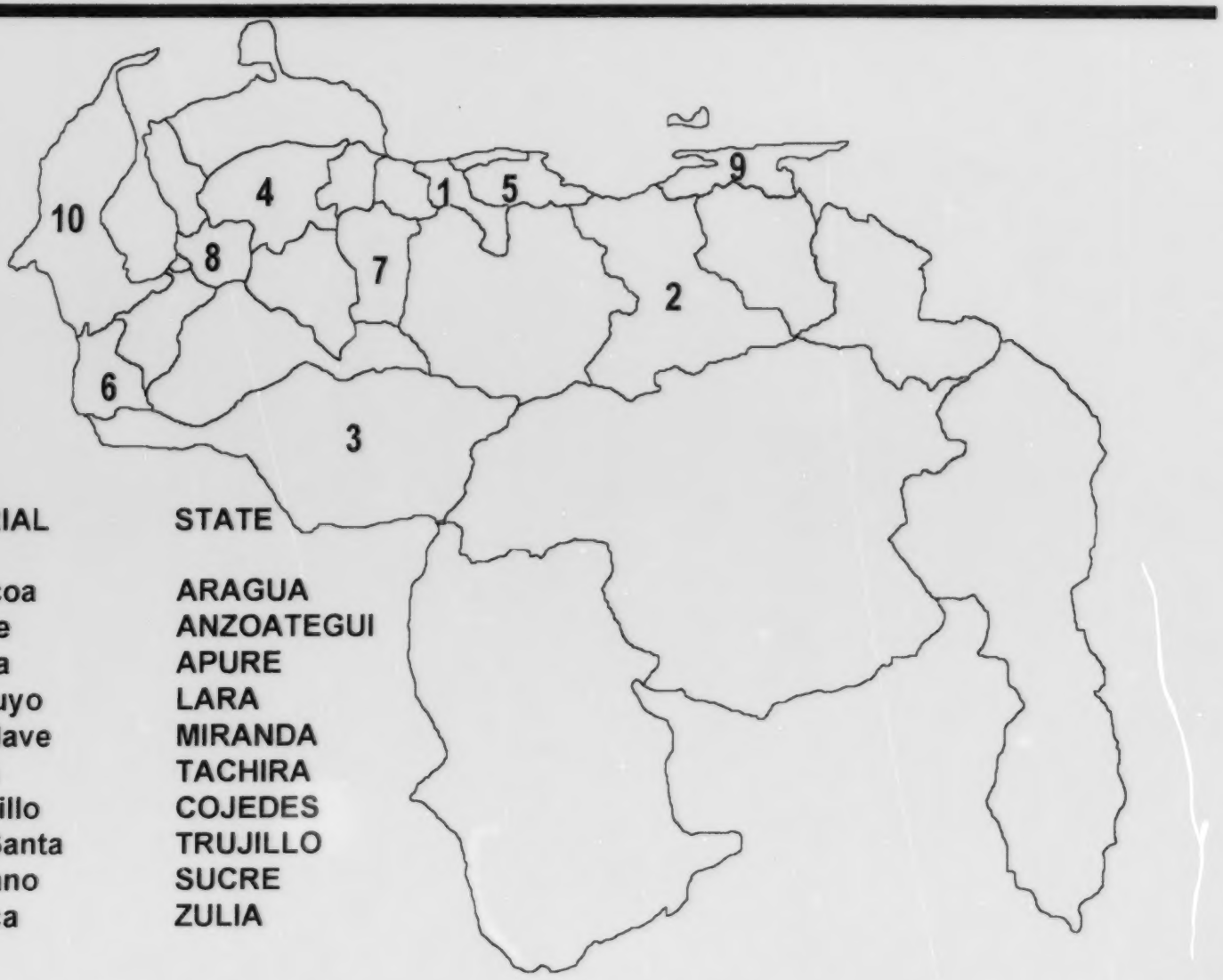
Source. Ministry of Production & Trade

1.3.1.5 Anticipated Results

SHORT TERM 2000 – 2005	⇒	• Reduce inflation • Increase employment • Reactivation of the industrial park • Technical assistance for industrial development
MEDIUM TERM **2006 – 2011**	⇒	• Control Inflation • Non-financial assistance to business • Modernization of the industrial sector • Stimulation of domestic demand • Increase exports • Increase employment
LONG TERM **2012 – 2020**	⇒	• Decentralised industrialization • A diversified economy • Social equity/justice • Strengthening of small and medium businesses • Positioning local industry within the International Economy • Full Employment

Source: Ministry of Production & Trade

INDUSTRIAL PARKS FOR REHABILITATION YEAR 2000



INDUSTRIAL PARKS	STATE
1. Barbacoa	ARAGUA
2. El Tigre	ANZOATEGUI
3. Biruaca	APURE
4. El Tocuyo	LARA
5. Charallave	MIRANDA
6. La Fría	TACHIRA
7. Tinaquillo	COJEDES
8. Agua Santa	TRUJILLO
9. Carupano	SUCRE
10. Zicolca	ZULIA

INVESTMENTS IN INDUSTRIAL PARKS REHABILITATION AND DEVELOPMENT. YEARS 2000-2005

	Industrial Park	Activity	Amount US$
1.	Carupano	Fishing and timber	475.758
2.	La Fria	Agro-industrial: dairy products, vegetables and fruits	301.515
3.	Biruaca	Agro-industrial: tanneries, clothing industries and sugar cane mills	W.I.
4.	Agua Santa	Agro-industrial: tanneries, clothing industries and sugar cane mills	1.378.788
5.	El Tigre	Goods and services industries, oil companies and agroindustries	515.152
6.	Charallave	Metalmechanic, textile, chemical and plastic industries	W.I.
7.	Tinaquillo	Agroindustries, textiles, sugar cane mills, tanneries	W.I.
8.	El Tocuyo	Sugar industry, sugar cane mills, tanneries and clothing industries	145.455
9.	Condima	W.I.	439.394
10.	Barbacoas	Agro-industry	1.163.636
		Total	**4.419.697**

W.I.: without information
Source: Ministry of Production and Trade

1.3.2 The Agricultural Plan

Key crops in the **agricultural** area were defined as: rice, oil palm, sugar cane, coffee, cocoa and fishing. On 2/8/2000 the Minister of Production and Trade, J.J. Montilla, announced the National Plan for Agricultural Development aimed at diversifying agricultural production and generating employment, as well as the following measures:

- The Law for Agricultural Financing with the approval of US$1.1 million.
- The increase of cultivated hectares, from 1.4 million ha to 2.185 million ha.
- The creation of one hundred thousand jobs directly and 1.5 million jobs indirectly (this sector provides employment to 10 % of the country's labour force).
- The increase of the participation of women in the agricultural labour force from 20% to 25%.
- The reduction of income tax for the sector by 80%.
- Fertilizer reduction of the price to decrease production costs.
- The assignment of US$32 million in credits for agricultural machinery, jointly with the People's Republic of China.
- Strategies with other countries to increase business volume and competitive prices.

Business association representatives of the Venezuelan agricultural sector (*FEDEAGRO* and *FEDENAGA*) said that the plan looks rather positive and that it may generate favourable conditions that stimulate private investment and greater employment levels in the short term.

1.3.3 Housing Plan

Within the National Infrastructure Plan, the National Government is considering the construction of a total of 84,218 housing units and two towns, one south of Valencia and the other, Ciudad Zamora, in the Tuy Valley in the year 2000.

The housing plan, with a public investment of US $ 1,501.7 billion, will be developed nation-wide and is aimed at favouring both the population poorest sectors and the middle class; it is also aimed at reactivating the construction sector and associated activities.

1.3.4 The National Infrastructure Plan

1.3.4.1 Strategic Approach

The Ministry of Infrastructure will focus its program on the reactivation of the national economy. The Ministry has developed four strategic areas that will serve as framework to fulfil the planned objectives.

Urban Plans: These plans will focus on population centres of the new centres of development: Eastern, Western and Orinoco - Apure. Preparation of the ABC 2000 Project and preparation of Special Studies.

The four strategic areas are:

- **Urban Construction and Infrastructure**: The priority is to complete unfinished works of national interest.

- **Housing**: The emphasis is taking care of low-income populations to improve their housing with the participation of private companies and the organized community in the development of organization and housing programs. Moreover, efforts will be aimed at a Care Plan for Street Dwellers, a Plan for the Improvement of Slums, the rehabilitation of low-income neighbourhoods, and the construction of new housing throughout the country.

- **Decentralization**: Development of appropriate mechanisms for the transfer of resources to Mayor's and Governor's Offices, so they can carry out urban infrastructure works and build housing.

- **Program of Transfers to Government Entities**: Transfer of funds to government agencies to take care of vital projects such as: Line IV of Caracas Subway, the Rural Housing Construction Program, the Valencia Subway, the Railways Program, the Rehabilitation of Roads, Bridges and Tunnels, Urban National Transportation and Massive Transportation in Merida state, and Urban Development in the Eastern Coast of Lake Maracaibo and in Lake Valencia.

1.3.4.2 Budgetary Approach

The Ministry of Infrastructure anticipates total resources of approximately US$1,458 million for the year 2000, of which US$420 million will be for operation expenses and approximately US$997 million for investments.

The works scheduled for the year 2000 are:

- Expansion and improvement of the Puerto Ayacucho airport in the state of Amazonas, Acarigua and Guanare airports in the state of Portuguesa, and Tucupita airport in the state of Delta Amacuro.

- Studies and projects of the works for the Territorial Strategic Area of the Orinoco-Apure Development Focus Area.

- Jose Antonio Paez, Romulo Betancourt, and Antonio Jose de Sucre highways. San Fernando - Puerto Paez road, San Cristobal - Rubio - San Antonio express way, Valera Trujillo Interurban Road.

US$ 144 million will be used to finance road networks, including US$61 million to finish highways as detailed next:

Road System Project	Amount (US$ MM)
Jose Antonio Paez Highway (Sabaneta – Ospino)	30,3
Antonio Jose de Sucre Highway (El Tacal – Plan de La Mesa)	6,8
Valera – Trujillo Interurban Highway	1,5
Centre-Western Highway (Chivacoa – Morón)	3,0
La Yaguara Principal Avenue	4,5
Circunvalation Barquisimeto Norte Avenue	6,1
Baloa Fly-over (Petare)	0,9
Metropolitan University Fly-over	0,5
San Fernando de Apure – Puerto Paez Road	7,6

Source: Ministry of Infrastructure

1.3.5 Production and Trade

1.3.5.1 Strategic Approach

The Ministry of Production and Trade integrates the powers and activities of the former Ministries of Agriculture and Livestock, Industry and Commerce, and Tourism in order to co-ordinate the national processes of transformation with domestic and international trade in a coherent manner. The current productive overview by sectors will be complemented with other perspectives corresponding to the phenomenon of the globalization of the world's community.

The purpose of this new Ministry is to increase the capacity for strategic leadership, focusing its functions in the formulation of policies, planning, co-ordination and regulation of the respective sectors within its scope.

This Ministry is responsible for the formulation of policies, strategies and plans related to agricultural, industrial, commerce and tourism development. This will lead to the production of goods and services and to regulatory action in harmony with the environment.

This Ministry is also responsible, together with the Ministries of the Environment and Infrastructure, for land tenancy and the recovery of agricultural infrastructure and associated services.

1.3.5.2 Budgetary Approach

The general approach of the Budgetary Policy is aimed at rescuing and relaunching the country's productive base in accordance with international realities. Priority sectors are:

The Industrial Sector

- Favour industrial integration through productive chains and geopolitical development centre lines.
- Strengthen the domestic market through the promotion of investments and the support of small and medium enterprises.
- Strengthen industrial chains through co-ordination with the private sector to improve its competitive performance.
- Promote and capture capital flows for the country's productive activities.

The Trade Sector

- Achieve the strengthening of small and medium trade enterprises and their gradual insertion into the new ways of international trade; consolidate the export sector; standardise the franchise boom and foster the purchasing system of the country's public sector; prepare an industrial, commercial and service census to have a digital map with the structure of the Venezuelan economy, among other anticipated objectives.

The Tourism Sector

- Attain the development of quality and competitive tourism with the private sector and the strengthening of Venezuela as a multiple tourism destination. The following should be highlighted among the specific activities: development of several tourism centres/complexes with high consumption level; promotion and marketing of tourism; continuous improvement of the quality of global tourism services; support infrastructure and public services in order to place the offer of tourism within international quality standards.

1.4 THE MAIN OBJECTIVES AND STRATEGIES BY SECTOR

The proposed policies for each sector anticipated in the Medium Term Plan have a general precedent in the *Ley Habilitante* (Enabling Law) passed by Congress to the National Executive in 1999, and are related to the re-activation of the economy. These sectors are:

1.4.1 The Oil Sector

The objective of this sector is to bring the development of petrochemicals, Orimulsion® and natural gas to the same level as oil industrialization. This will permit the formation of national capital that will participate jointly with public investment and private external investment in the petroleum activity both downstream and upstream, in all its possibilities.

1.4.2 The Electric Sector

1.4.2.1 General Objective

To recover and modernize the national electrical power sector to guarantee an efficient and sustainable service.

1.4.2.2 Strategies

- Legal framework regulating the sector – Approved in 1999.

- Reversal of the deterioration process and reestablishment of the driving role of the electrical sector in the economic activity.
- Creation of the Electric Energy Transmission National Company.
- Investment Plan of US$ 5,000 million in 5 years.
- Mega-project for the construction of the Caruachi Hydroelectric Station in Bolivar state.
- Work in the transmission system to expand the trunk network capacity of the Guri Hydroelectric Complex towards the middle and western areas of the country.
- Expansion of the electrical power capacity in Monagas state.

1.4.3 The Tourism Sector

1.4.3.1 General Objectives

Co-ordinate public and private sector efforts aimed at attaining the sustainable development of the tourism activity and place Venezuela as a multiple highly competitive tourism destination.

1.4.3.2 Strategies

- Creation of the Environmental Tourism Centre, Falcon state.
- Isla Tortuga Master Plan.
- Draft Bill for the creation of a Free Zone Regime to foster Tourism in the Paraguana peninsula, Falcon state.
- Tourism fluvial corridor in the Orinoco River, Amazon state. Amazonian Co-operation Treaty.
- Portuguesa river tourism corridor (Portuguesa state).
- Puerto Nutrias tourism development (Apure state).
- Program for technical assistance and finance of inns and tourism camps.
- Decentralization of tourism services to states and municipalities.
- Participation of national and foreign private capital in plans and projects specific for the sector.

1.4.4 The Agricultural Sector

1.4.4.1 General Objectives

Promote the competitive development of the national agricultural sector to ensure the efficient national supply of food and adapt it to market globalization.

1.4.4.2 Strategies

- Programs for: rice, sugar cane, oil palm, coffee and cocoa, double purpose cattle, maritime and fluvial artisan fishing, vegetables and fruits.

- Orinoco – Apure Development Zone Project: Fertile lowlands and islands in the Orinoco and Apure rivers: grains, vegetables, cotton and fishing.
- High plains of Apure, Barinas and Tachira states: oil palm, cocoa and double purpose cattle.

A set of activities is considered for each program or project in the primary production and transformation phases, as well as in the areas of marketing, distribution, export and consumption, and in the areas of technology, financial support, promotion of investments, infrastructure, basic services, information and training. This will permit the launching of a remade and strengthened national agricultural production.

1.4.5 The Construction Sector

1.4.5.1 General Objectives

Revitalize production based on the generation of indispensable basic infrastructure, and foster private investment through the formulation of an appropriate legal framework.

1.4.5.2 Strategies

- Program of studies and projects.
- National roads and highways.
- Urban and rural roadways.
- Subway civil works.
- Caracas subway Line IV.
- Valencia subway works.
- Railways Plan (Civil works).
- Concessions program.
- Thoroughfare infrastructure projects.
- Civil works of high profitability transport.
- Program with multilateral organizations for the restoration of works and housing.
- Programs for sanitary works at national level.
- Work programs for urban equipment (*MINDUR*).
- Reconstruction Plan for Vargas state.

The Construction Chamber estimates that recessive trend of the year 1999 will revert in the year 2000 and a 10% growth in the sector is expected for the year 2000, as well as a 50% reduction in unemployment. This estimate is based on the fact that the construction sector has at its disposal the installed capacity and the capital necessary to cover the demand to be generated by the housing construction and public works to be undertaken by the Government in the year 2000. The latter are estimated to be US $ 4.5 billion (El Universal newspaper, 2-8-00, 2-10).

1.4.6 The Telecommunications Sector

Eight years after the privatization of *Compañia Anonima Nacional Telefonos de Venezuela (CANTV)* and with US$5 billion accumulated investment for the construction of its technological platform, CANTV's budget for the year 2000 is US$600 million; this includes its affiliated companies *Movilnet*, a cellular phone company, and *CAVEGUIAS*, an advertising marketing company. Among its immediate plans, CANTV expects to complete the domestic optical fiber network (inland and maritime), sharpen the details for the launching of the ADSL Project aimed at providing a greater transmission of information potential using the cable network, and continue with satellite expansion work.

The CANTV is also considering the increase of its participation in international submarine cables and optical fiber cables, and the increase by 10% of the digitalization of its network and the number of its public attention offices.

The report of the *Consejo Nacional para la Promocion de Inversiones (CONAPRI* – National Council for the Promotion of Investments*)* called Investment Opportunities in Telecommunications, points out that telecommunications in Venezuela present several levels of expansion and development. Investment opportunities in this sector are multiple.

The demand for telecommunication services in this new century is in clear growth. Calculating net investment figures, CONAPRI says that the telecommunication sector companies invoiced approximately US$3,000 million in 1999; that represents over 3% of the GDP. The estimated investment for the year 2000 amounts to US$ 2,000 million and will be mainly used in basic telephony, mobile telephony and added value services. CONAPRI's report indicates that for this initial decade, it estimates a potential market with approximately US$4,500 million additional invoicing, for a total investment in infrastructure over US$800 million.

The *Consejo Nacional de Telecomunicaciones, (CONATEL* – National Telecommunications Council*)*, at the service of the Ministry of Infrastructure, is the official agency responsible for the regulation of this sector in Venezuela. With the purpose of giving a dynamic answer to the sector's growth and foster sustained growth, CONATEL designed a 10-year (1997-2007) Strategic Plan that addresses, among other, the following aspects:

- Complete privatization process and consolidate the sector opening.
- Update the norms in force.
- Consolidate the Simon Bolivar Satellite Project.
- Stimulate the participation of new basic telephony operators.
- Implement personal communication systems.
- Initiate the operation of high definition digital radio and television services.

1.5 PRIVATIZATION

According to the Economic Plan designed by the Administration, privatization is one of the public policies that form governmental management in the coming years. This decision is based on the need to transfer the management and operation of state entities presenting a difficult financial condition that the Government is not capable to face to private capitals. Therefore, private capital is needed to improve the operation of such companies. This opens the door to private investment in the production of goods and services that were earlier reserved for the public sector. In this sense, it is anticipated that the privatization process will continue in the following sectors:

1.5.1 The Electric Power Sector

- Creation of the National Transmission Company.
- Participation in the capital stock of *ENELVEN – ENELCO* and *ENELVAR*.
- The electric power system of Monagas and Delta Amacuro states.

1.5.2 The Aluminium Sector

- Restructuring process of the aluminium companies.
- Sale of *VENALUM* shares.
- Strategic associations of *ALCASA* and *CARBONORCA* with national and international transforming companies.

1.5.3 Other

- National race tracks.
- Public works concessions.
- Hotels.
- National tourism assets.

2. THE LEGAL FRAMEWORK

2.1 THE ENVIRONMENTAL LAWS

The key instruments to steer and implement environmental policy are: the Organic Law of the Environment, the Organic Law of Administrative Procedures, the Organic Law for Territorial Planning, the Organic Law for Urban Planning, the Law of Forests, Soils and Waters, the Law for the Protection of Wildlife, and the Environment Penal Law, as well as a set of supplementary provisions known as the "*technical norms*," the most relevant aspects of which will be described next.

2.1.1 The Organic Law of the Environment (*Ley Orgánica del Ambiente*)[1]

The Organic Law of the Environment (1976) sets forth the ruling principles for the conservation, protection and improvement of the environment.. This Law establishes the activities capable of damaging the environment; the administrative and penal sanctions for violators of the stated provisions; and the creation of the the Environment Prosecutor's Office (Procuraduría del Ambiente) to represent the people's interests against violators; the Attorney General's Office is currently in charge of these functions.

2.1.2 The Organic Law of Administrative Procedures (*Ley Orgánica de Procedimientos Administrativos LOPA*)[2]

The Organic Law of Administrative Procedures (LOPA) (1981) regulates the fundamental aspects of the relationships between the Public Administration and individuals with the purpose of changing administrative informality into procedural formality, and the situation of powerlessness and individuals' restraint into guarantees and rights.

2.1.3 The Organic Law for Territory Planning (*Ley Orgánica para la Ordenación del territorio*)[3]

The Organic Law for Territory Planning (LOPOT) (1983) sets forth the provisions regulating territory planning. Its basic instrument is the National Plan for Territorial Planning (PNOT - *Plan Nacional de Ordenacion del Territorio*) approved in 1999, and the plans in which this is broken down: regional territory planning, area plans, areas under special administration regimes planning, urban planning, and other plans for land use required in the country. Unlike other plans that strictly provide instructions, compliance with the planning plans is, upon their approval, obligatory for individuals and for both private and public corporate bodies. The Ministry of the Environment and the Natural Resources (*MARN – Ministerio del Ambiente y de los Recursos Naturales*) has jurisdictional authority to establish,

---

[1] Official Gazette No. 31.004, 6/16/76

[2] Official Gazette No. 2818, 7/1/81

[3] Official Gazette No. 3238 Special, 8/11/83

by administrative action, the conditions for land use and, accordingly, the use of the natural resources both by individuals and public bodies. The control for implementation of the National Plan and Land Use Zoning Plans lies with MARN and the governors. The control of the plans for the areas under special administration regime lies with the competent bodies as established in other laws or in the LOPOT.

2.1.4 Organic Law for Urban Planning *(Ley Orgánica de Ordenación Urbanística)*[4]

The purpose of the Organic Law for Urban Planning (LOOU) (1987) is the planning of urban development to procure the harmonic growth of population centres and the protection of environmental resources and quality of life in urban centres. Jurisdictional authority in urban matters corresponds concurrently to the National Executive and to Municipalities. The LOOU regulates the mechanisms for participation of the Neighbours Associations in local issues and, particularly, in the control of urban development.

2.1.5 The Law of Forests, Soils and Waters (*Ley Forestal de Suelos y Aguas)*[5]

The Law of Forests, Soils and Waters (1966) governs the conservation, development and use of the natural resources stated therein and their by-products. This Law declares of public interest: the protection of watersheds; currents and water falls that may generate hydrologic power; national parks, natural monuments, protecting zones, reserves in virgin regions and forest reserves. Likewise, it declares as of public benefit, the rational handling of renewable natural resources; the conservation, development and rational use of forests and soils; the introduction and propagation of non-native forest species; the prevention, control and extinction of forest fires; the reforestation and preparation of the national forest inventory.

It is established that deforestation, high or medium vegetation felling, forest clearings and fires with agricultural purposes, land levelling, and the exploitation of forest products, as well as any other activity implying destruction of the vegetation, may not be undertaken without prior authorization.

As forest protection measures, the Law sets forth that National Parks will only be used for public recreation and education, and for tourism and scientific research under the conditions established in the respective planning plans and regulations of use. The Law further sets forth the respective plans and regulations and declares Protected Zones with legal limitations to property for the conservation of forests, soils and waters. The Law further establishes the obligation by the National Executive to protect watersheds against all factors that contribute or may contribute to their destruction or deterioration.

---

[4] Official Gazette No. 33868, 1216/87

[5] Official Gazette No. 997 Special, 1/8/66

2.1.6 The Law for Protection of Wildlife (*Ley de Protección de la Fauna Silvestre*)[6]

This Law of 1970 governs the protection and rational use of wildlife and its products, as well as hunting. The Law declares of public interest the creation of Reserves (zones necessary for the development of research programs and for the planning and handling of wild animal populations), Refuges (zones considered necessary for the protection, conservation and propagation of wild animals, particularly species in danger of extinction), and Wildlife Sanctuaries (zones where animals characteristic of the national fauna or world-wide rare species live, or animals presenting an interest for recreation and tourism). Rural property is legally restricted by the declarations on Wildlife Reserves, Refuges and Sanctuaries, as are scientific research plans and the planning and handling of wild animal populations.

2.1.7 The Environmental Penal Law (*Ley Penal del Ambiente*)[7]

The Environemntal Penal Law (1991) was enacted with the purpose of: typifying as crimes the acts that violate provisions for the conservation, protection and improvement of the environment; establishing the pertinent penal sanctions; and establishing the precautionary, restoration and recovery measures deemed convenient.

Application of this Law is not restricted to Venezuelan territory. It may also be applied to environmental crimes perpetrated outside Venezuelan territory that may have affected or endangered interests protected by Venezuelan laws.

2.1.8 Technical Regulations (*Normas Técnicas*)

Faced with the difficulty of legally describing the crimes set forth in the Penal Law of the Environment, MARN was charged with drafting and publishing all the supplementary technical provisions (technical norms) to which environmental crimes refer. These norms are:

- **Technical Norms and Procedures for the Handling of Radioactive Material *(Normas Técnicas y Procedimientos para el Manejo de Material Radiactivo) (Decree No. 2210 of 4/23/92)*[8]**

These Norms regulate the handling of radioactive material for the protection of human health and the environment. They are applicable to every individual or corporate body, whether public or private, that imports, manufactures, transports, stores, trades, assigns for a consideration or without recompense, or uses for industrial, commercial, scientific, medical purposes or for any other purpose: devices

---

6 Official Gazette No. 29289, 8/11/70

7 Official Gazette No. 4358 Special, 1/3/92

8 Decree No. 2210, Official Gazette No. 4418 Special, 23/4/92

capable of generating ionising radiation with quantum energy exceeding the values established in such Norms.

- **Norms to Control the Recovery of Dangerous Materials and the Handling of Dangerous Waste *(Normas para el Control de la Recuperación de Materiales Peligrosos y el Manejo de los Desechos Peligrosos) (Decree No. 2289 of 12/18/97)***[9]

The purpose of this Decree (partially amended by Decree 2635 of 8/3/98) is to regulate the recovery of materials and the handling of waste that has dangerous characteristics, make-up or conditions presenting a risk for health and the environment. This Decree sets forth the conditions for the recovery, storage, trade and transportation of dangerous waste; the administrative control of waste generators and recyclers; the general provisions on the handling of dangerous waste whether from oil exploration and production activities or from health facilities, waste incineration or landfills; the administrative control of dangerous waste handlers; and, finally, the methods of management for generators of dangerous material and waste.

- **Norms to Control the Use of Substances Depleting the Ozone Layer *(Normas para Controlar el Uso de las Sustancias Agotadoras de la Capa de Ozono) (Decree No. 2215 of 4/23/92)***[10]

These Norms establish that all individuals and corporate bodies manufacturing substances depleting the Ozone Layer should submit to MARN all manufactured amounts data every six (6) months, pursuant to the provisions in the Approving Law of the Montreal Protocol regarding substances depleting the Ozone Layer. As of July 1, 1992, the manufacturing, import and export of aerosol products containing: CFC-11, CFC-12, CFC-13, CFC-111, CFC-112, CFC-113, CFC-114, CFC-115, Carbon Tetrachloride and Methyl Chloroform was forbidden, except authorized pharmaceuticals and technical-use aerosols without substitute in the market, according to an issued certificate.

- **Norms for the Handling of Non-Dangerous Solid Waste from Domestic, Commercial, Industrial Sources or of any other Nature *(Normas para el Manejo de Desechos Sólidos de Origen Doméstico, Comercial, Industrial o de Cualquier otra Naturaleza que no sean Peligrosos) (Decree No. 2216 of 4/23/92)*** [11]

These Norms regulate the operations for the handling of domestic, commercial, industrial or any other non-dangerous type of solid waste, in order to avoid risks to health and the environment. These Norms further establish that management of all the activities related to solid waste handling is the responsibility of the municipalities; the National Executive will, through MARN, provide the

---

[9] Decree No. 2289, 12/18/97, Official Gazette No. 5212 Special, 2/12/98

[10] Decree No. 2215, Official Gazette No. 4418 Special, 4/23/92

[11] Decree No. 2216, Official Gazette No. 4418 Special, 4/23/92

Municipalities with the necessary technical assistance and verify compliance with the Norms. Sites anticipated for final disposal of solid waste should have the pertinent administrative approval or authorization for land use. Any person who wishes to start a sanitary landfill should obtain an authorization from MARN for the performance of an activity capable of damaging the environment.

- **Norms on the Control of Acoustic Contamination *(Normas Sobre el Control de la Contaminación Generada por Ruido) (Decree No. 2217 of 4/23/92)*** [12]

These Norms control the contamination caused by fixed or mobile noise-generating sources. In the case of fixed sources, the scope of their application is limited to the non-confined environment located outside the premises where such sources operate and includes any facility, process, equipment or device capable of making noise. In the event of noises generated by commercial, domestic or social activities, they should be considered as an alteration of the public order.

- **Norms for the Classification of Waste and the Handling at Health Facilities *(Normas para la Clasificación y Manejo de Desechos en Establecimientos de Salud) (Decree No. 2218 of 4/23/92)*** [13]

These Norms establish the conditions under which the waste generated by human or animal health facilities should be handled in order to prevent the contamination and microbial infection of users, workers and the general public.

- **Norms to Regulate the Use of the Renewable Natural Resources Associated with Mineral Exploitation and Extraction *(Normas para Regular la Afectación de los Recursos Naturales Renovables Asociada a la Explotación y Extracción de Minerales) (Decree No. 2219 of 4/23/92)*** [14]

These Norms establish the requirements to obtain the authorizations and approvals for land use and impact on natural resources, as well as the guidelines that permit the control of the exploration and open pit mining of metallic and non-metallic minerals.

- **Norms to Control the Development of Activities that by the Generation of Changes of Flow, River-bed Obstruction and Sedimentation Problems *(Cambios de Flujo, Obstrucción de Cauces y Problemas de Sedimentación) (Decree No. 2220 of 4/23/92)*** [15]

---

[12] Decree No. 2217, Official Gazette No. 4418 Special, 4/23/92
[13] Decree No. 2218, Official Gazette No. 4418 Special, 4/23/92
[14] Decree No. 2219, Official Gazette No. 4418 Special, 4/23/92
[15] Decree No. 2220, Official Gazette No. 4418 Special, 4/23/92

These Norms control the development of activities that by the generation of changes in the control systems of water works, obstruction of river-beds and run-off, and production of sediments, are capable of causing damage such as flooding, water distribution deficits, river-bed instability and water quality alteration; consequently, all activities capable of causing flow changes, river-bed obstruction and sedimentation problems are subject to approval on receipt of authorization.

- **Norms to Regulate the Introduction and Propagation of Exotic Species of Aquatic Flora and Wildlife *(Normas para Regular la Introducción y Propagación de Especies Exóticas de la Flora y Fauna Silvestres y Acuáticas) (Decree No. 2223 of 4/23/92)*** [16]

These Norms establish the conditions regulating the introduction and propagation of exotic species of aquatic flora and wildlife with commercialisation or scientific purposes.

- **Environmental Norms for the Opening of Trenches and the Construction of Access Ways *(Normas Ambientales para la Apertura de Picas y Construcción de Vías de Acceso) (Decree No. 2226 of 4/23/92)*** [17]

These Norms establish the conservation measures and practices to be taken into account when cutting trenches and building access ways, in order to lessen the adverse environmental effects that such activities may generate in their area of influence.

- **Norms for Earth Moving and Environmental Conservation *(Normas sobre Movimientos de Tierra y Conservación Ambiental) (Decree N° 2212 of 4/23/92)*** [18]

These Norms establish the conditions under which deforestation, earth moving, slope stabilization, forestation activities, green areas, and everything related to soil protection, will be undertaken.

- **Norms for Air Quality and Control of Atmospheric Contamination *(Normas sobre la Calidad del Aire y Control de la Contaminación Atmosférica) (Decree No. 638 of 4/26/95)*** [19]

These Norms establish the air quality improvement as well as the atmospheric pollution prevention and control caused by fixed and mobile sources capable of generating gaseous emissions and particles.

---

[16] Decree No. 2223, Official Gazette No. 4418 Special, 4/23/92

[17] Decree No. 2226, Official Gazette No. 4418 Special, 4/23/92

[18] Decree No. 2212, Official Gazette No. 35206, 5/7/93

[19] Decree No. 638, Official Gazette No. 4899 Special, 5/19/95

- **Norms for the Classification and Control of the Quality of Water Bodies and Effluents *(Normas para la Clasificación y el Control de la Calidad de los Cuerpos de Agua y Vertidos o Efluentes Líquidos) (Decree No. 883 of 10/11/95)*** [20]

These Norms establish the criteria for water classification, as well as the required quality levels according to their intended uses. For effluent control, the Norms establish the activities subject to application pursuant to the International Uniform Industrial Classification of the United Nations and the maximum ranges and limits for effluent quality to be directly or indirectly discharged. Injection activities associated with hydrocarbon exploration and exploitation in non-useful aquifers and oil reservoirs are subject to prior authorization by MARN.

Likewise, the Norms establish that MARN should keep a Registry of the Environmental Laboratories with facilities and equipment adequate to take and analyse effluent samples with maximum guarantee. Environmental Laboratories should carry out all sample taking, conservation and analysis according to the procedures described in the Venezuelan Standards COVENIN or, in the absence thereof, in the manual of "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, American Water Works Association and the Water Pollution Control Federation.

- **Norms on the Environmental Assessment of Activities Capable of Damaging the Environment *(Normas sobre Evaluación Ambiental de Actividades Susceptibles de Degradar el Ambiente) (Decree No. 1257 of 4/23/92)*** [21]

These Norms establish the procedures for environmental assessment of activities capable of damaging the environment. This evaluation can then be included in the decision making process to formulate development policies, plans, programs and projects, and the environmental variable be incorporated in all stages. The procedure for mining and hydrocarbon activities establishes that to obtain the approval or authorization for land use, the parties concerned should fill out the Environmental Questionnaire included in MARN's Resolution N° 56 of July 4, 1996.

Once the approval or authorization for land use is granted, to initiate the exploration phase contract and concession beneficiaries have to obtain an authorization from MARN to use the renewable natural resources. For exploratory drilling and for the development of early extraction and the installation of pilot plants in the mining exploration phase, the application for the authorization to use the renewable natural resources has to be accompanied by an Environmental Impact Study (*EIA – Estudio de Impacto Ambiental*).

---

[20] Decree No. 883, Official Gazette No. 5021 Special, 12/18/95

[21] Decree No. 1257, Official Gazette No. 35946, 4/25/96

For initiation of the mining extraction and hydrocarbon production phases, the Norms further establish that contract and concession beneficiaries should previously obtain from MARN the authorization to use the renewable natural resources, accompanied by an EIA.

For the purposes of supervision, surveillance and control of environmental projects, contract and concession beneficiaries should submit an Environmental Supervision Plan with the application for the authorization to use the renewable natural resources. Preparation and implementation of the Environmental Supervision Plan should be the responsibility of specialized staff or an Environmental Consultant registered at MARN. International consulting companies interested in providing their services in Venezuela should have local affiliates or national representatives.

- **Norms for the Protection of Mangrove Swamps and their Associated Vital Spaces *(Normas para la Protección de los Manglares y sus Espacios Vitales Asociados) (Decree N° 1843 of 9/19/91)*** [22]

The purpose of these Norms is the protection of all biological expressions of the mangrove ecosystem and its associated vital spaces from eventual disturbance caused by the use of nearby coastal areas for development programs or any other activity tending to affect such spaces.

Consequently, individuals or corporate bodies, whether public or private, that intend to carry out projects, activities or works implying the disturbance of the mangrove ecosystem or its associated vital spaces, should request from MARN the respective approvals or authorizations for land use and for the impact of the renewable natural resources.

- **Norms for the Protection of "Morichales" *(Normas para la Protección de Morichales) (Decree No. 846 of 4/5/90)*** [23]

The purpose of these Norms is the protection and conservation of the ecosystems known as "*morichales*". These are special plant formations characterised by the presence of the Moriche Palm (*Mauritia flexuosa*) in permanently saturated soils and associated with a drainage channel.

2.2 INTERNATIONAL AGREEMENTS

The judicial instruments in the environment and natural resources sectors signed by the Government of Venezuela with international, regional and subregional organizations and with foreign Governments are listed next, indicating which ones have been ratified by Congress:

---

[22] Decree No. 1843, Official Gazette No. 34819, 10/14/96

[23] Decree No. 846, Official Gazette No. 34462, 5/8/90

Legal Instrument	STATUS	
	Signed	Ratified
Area: Industrial Contamination		
Agreement on the Employment of Ceruse in Paints	Geneva, 10/1921	12/6/33
Vienna Agreement on the Protection of the Ozone Layer	Vienna, 1985	7/19/89
Montreal Protocol on Ozone Layer Depleting Substances	Montreal, 9/16/87	1/11/89
World-wide Agreement on the Control of Dangerous Waste Transborder Movements	Basilea, 1989	
Framework Agreement on Climatic Change	Rio de Janeiro, 1992	12/27/94
Area: Flora and Wildlife Protection and Handling		
Convention for the Protection of the Flora, Wildlife and Natural Scenic Beauties of American Countries	Washington, 10/12/40	11/13/41
Convention on the International Trade of the Wildlife and Flora Endangered Species - CITES	Washington, 3/3/73	6/29/77
Convention on Internationally Important Humid Soils particularly as Aquatic Bird Habitat; "Ramsar Convention"	Iran, 2/2/71 France, 12/3/82	9/16/88
Convention on the Protection of the World's Cultural and Natural Patrimony	France, 11/23/72	7/6/90
Area: Sea Resources Protection and Handling		
International Agreement for the Conservation of Tuna Fish in the Pacific and its Modifying Protocol	Rio de Janeiro, 1966 Paris, 1984	6/30/75 9/16/88
Convention on the Fishing and Conservation of High Seas Alive Resources	Geneva, 4/19/58	8/1/61
International Convention to Prevent the Contamination of Sea Waters by Hydrocarbons	London, 5/12/54	11/11/63 9/26/78
Convention on the Territorial Waters and Contiguous Zone	Geneva, 4/29/58	7/31/61
Convention on the Continental Platform	Geneva, 4/29/58	7/29/61
Convention on High Seas	Geneva, 4/29/58	8/1/61
Convention on the Protection and Development of the Environment and Coastal Zones in the Great Caribbean Region, "Cartagena Agreement"	Cartagena, 3/24/83	7/25/86
Protocol on the Wildlife and Flora Areas specially Protected by the Cartagena Agreement	Kingston, 1/18/90	
Cupertino Protocol to Fight Hydrocarbon Spills in the Great Caribbean Region	Cartagena, 3/1983	8/7/85
International Agreement to Prevent Contamination by Ships "Marpol 73/78"	London, 1/2/73 London, 6/29/78 London, 11/1994	9/30/92 9/15/93 6/29/95
International Agreement on Co-operation, Restoration and Fight against Hydrocarbon Contamination	London, 11/29/90	
Area: Forest Resources Handling		
International Agreement on Tropical Woods	Yokohama, 1/18/83 New York, 10/4/95	2/1/94
Area: Biodiversity		
Agreement on Biological Diversity	Rio de Janeiro, 1992	9/12/94
Finance Agreement between the European Community and Venezuela for Implementation of the Alto Orinoco-Casiquiare Biosphere Reserve Project	Caracas, 1/152/93	
Agreement between Venezuela and the UNESCO on the Tropical Ecology International Centre	Caracas, 2/19/76	5/7/77

Source: MARN. Environmental Balance in Venezuela. Appendix 1996

2.3 PROPOSED LEGISLATION

The Environmental Organic Code (*Código Orgánico Ambiental)* is currently being drafted. The purpose of this Code is to compile in a single legal instrument practically the whole environmental regulatory scheme in force. It also incorporates new non-legislated issues already foreseen in the recently approved Constitution.

The Environmental Organic code will revoke the Organic Law of the Environment, the Organic Law for Territory Planning, the Law on Forests, Soils and Waters, the Law for the Protection of Wildlife and the Penal Law of the Environment, as well as practically all the technical norms.

This Environmental Organic Code has already been submitted for discussion and approval to the *Asamblea Nacional* or *Congresillo*, without having been submitted to public discussion yet. It is estimated that it may be enacted by mid year.

3 MARKET OVERVIEW

3.1 MINISTERIO DEL AMBIENTE Y DE LOS RECURSOS NATURALES (MARN)

As of 1997, MARN is responsible for the *Environmental Management Program* created under a 5-year agreement with the World Bank to strengthen Venezuelan environmental management and obtain the Bank's contribution to the sustainable socio-economic development of the country. The Program covers three sectors:

- Modernize MARN's national and regional institutional capability.
- Stimulate the development of private environmental services and the Venezuelan industrial sector.
- Develop the National Digitalized Cartography program to support public and private environmental management.

Within the development of this program, MARN contemplates the contracting of external specialized services under the procedure established in the public or selective Bidding Law, according to contract amount.

3.1.1 Strategic Approach

Based on the legal powers and authority assigned to this Ministry by the Organic Law of the National Public Administration, it should be mentioned that the fundamental role of MARN is the formulation of policies for the conservation, protection, and improvement of the environment and its resources and achievement of the rational use of such resources within a sustainable development framework.

One of MARN's policies for the year 2000 is to ensure that economic and social activities take into account environmental factors and recognize themas an integral element of sustainable development.

The Annual National Operating Plan *(Plan Nacional Operativo Anual)* establishes three strategic areas: the social, the economic and the territorial areas. In the **social area**, environmental education is the basic focus aimed at creating collective awareness and effective participation in solving environmental conflicts. The **economic area** highlights the need to develop a basic environmental infrastructure oriented towards the equipping and maintenance of the same, to increase the quality of life. The **territorial area** establishes as important the need to promote sustainable development in the new territorial centre lines of development to attain the economic, social productive, political and cultural equilibrium of the country.

MARN's lines of action to achieve these strategic objectives are focused on three aspects:

In the first place: **co-ordination,** since the environment should be considered a space where conflicts arise due to the complexity of its processes and to social and environmental interrelationships. Accordingly, a Conflict Handling methodology aimed at finding solutions should be instituted.

In the second place: a focus on **quality of life** through the incorporation of a technological base in agreement with environmental needs, such that the environment does not continue being the object of negative and irreversible impacts.

In the third place: **citizen participation** as a fundamental element to achieve these objectives. The intention is that communities, trade unions and associations identify their problems and take the lead to solve them.

MARN will have the fundamental role of drafting the norms for all processes and activities within its scope and will act as a link with all public and private organizations involved and interacting with the community in general.

3.1.2 Functions

The functions of MARN are established in Section 36 of the Organic Law of the Central Administration (*Ley Organica de la Administracion Central*), and are as follows:

3.1.2 Functions

MARN functions are established in section 40 of the amendment to the Organic Law of the Central Administration published in the Official Gazette dated 10/14/99, which literally says that the following are the functions corresponding to MARN:

1) The regulation, formulation and follow-up of the Venezuelan State's environmental policy.
2) The planning, co-ordination and implementation of the National Executive activities to foster and improve the quality of life, the environment and the natural resources.
3) The design and implementation of environmental education policies.
4) The exercise of national authority regarding waters.
5) The planning of the territory.
6) The administration and management of watersheds.
7) The conservation, protection, handling, restoration and rational and sustainable use of natural resources.
8) The handling and control of forest resources.
9) The generation and updating of the cartography and the national land register.

10) The evaluation, surveillance and control of the activities capable of damaging the environment to be carried out in the whole national territory and in coastal marine waters.

11) The administration of the areas under special administration regime.

12) The operation, maintenance and sanitation of water resource works.

13) The technical environmental regulatory scheme.

14) The drafting of environmental studies and projects.

15) The other responsibilities assigned to MARN by the laws.

These functions were altered recently as part of the public administration changes being implemented in the country. The change of name from Ministry of the Environment and the Renewable Natural Resources (MARNR) to Ministry of the Environment and the Natural Resources (MARN) is particularly important because now the Ministry assumes environmental control of the urban, petroleum and mining areas, which were previously under the responsibility of other ministries.

3.1.3 Structure

MARN is organized in several units, as illustrated in the organization chart included below. The main objectives of the operating units are:

- **GENERAL DIVISION FOR ENVIRONMENT PLANNING** ***(Dirección General de Planificación y Ordenación del Ambiente)***

Responsible for carrying out with other departments of the Ministry and other entities involved the functions of Environmental and Territorial Planning assigned to it by the Organic Law of the Environment and Territorial Planning.

- **GENERAL DIVISION FOR ENVIRONMENTAL EQUIPMENT** ***(Dirección General de Equipamiento Ambiental)***

Responsible for preparing and implementing the Environmental Infrastructure National Plan according to MARN's environmental policies, organizational needs and the established technical criteria.

- **GENERAL DIVISION OF HYDROGRAPHIC BASINS** ***(Dirección General de Cuencas Hidrográficas)***

Responsible for scheduling, co-ordinating, regulating and supervising the implementation of national plans and the generation of basic information on water and soil resources, as well as on meteorology and oceanography; and for participating in the administration of water resources based upon their use

and conservation and considering the watershed as the planning and management unit in order to contribute to the country's socio-economic development.

- **GENERAL DIVISION FOR ENVIRONMENTAL EDUCATION & COMMUNITY PARTICIPATION** ***(Dirección General de Educación Ambiental y Participación Comunitaria)***

Responsible for designing and implementing the environmental education and community participation system within which policies, criteria, norms, processes and management measuring indicators are developed.

- **GENERAL DIVISION FOR ENVIRONMENTAL QUALITY** ***(Dirección General de Calidad Ambiental)***

Responsible for developing activities aimed at preventing and controlling the effects that damage the quality-of-life caused by air and water pollution and toxic and/or dangerous solid waste. This division is also responsible for the preparation of the Environmental Research National Program and the application of norms for environmental evaluation of activities capable of damaging the environment.

- **GENERAL DIVISION FOR ENVIRONMENTAL INSPECTION AND CONTROL** ***(Dirección General de Vigilancia y Control Ambiental)***

Responsible for establishing and maintaining a national permanent inspection and control system for territory occupation; the use, administration and handling of the renewable natural resources; and environmental quality, all these with the purpose of supervising environmental management.

- **THE AUTONOMOUS WILDLIFE SERVICE** ***(Servicio Autónomo de Fauna)***

Responsible for addressing the need of fulfilling the official action aimed at the conservation, protection and rational use of wildlife resources.

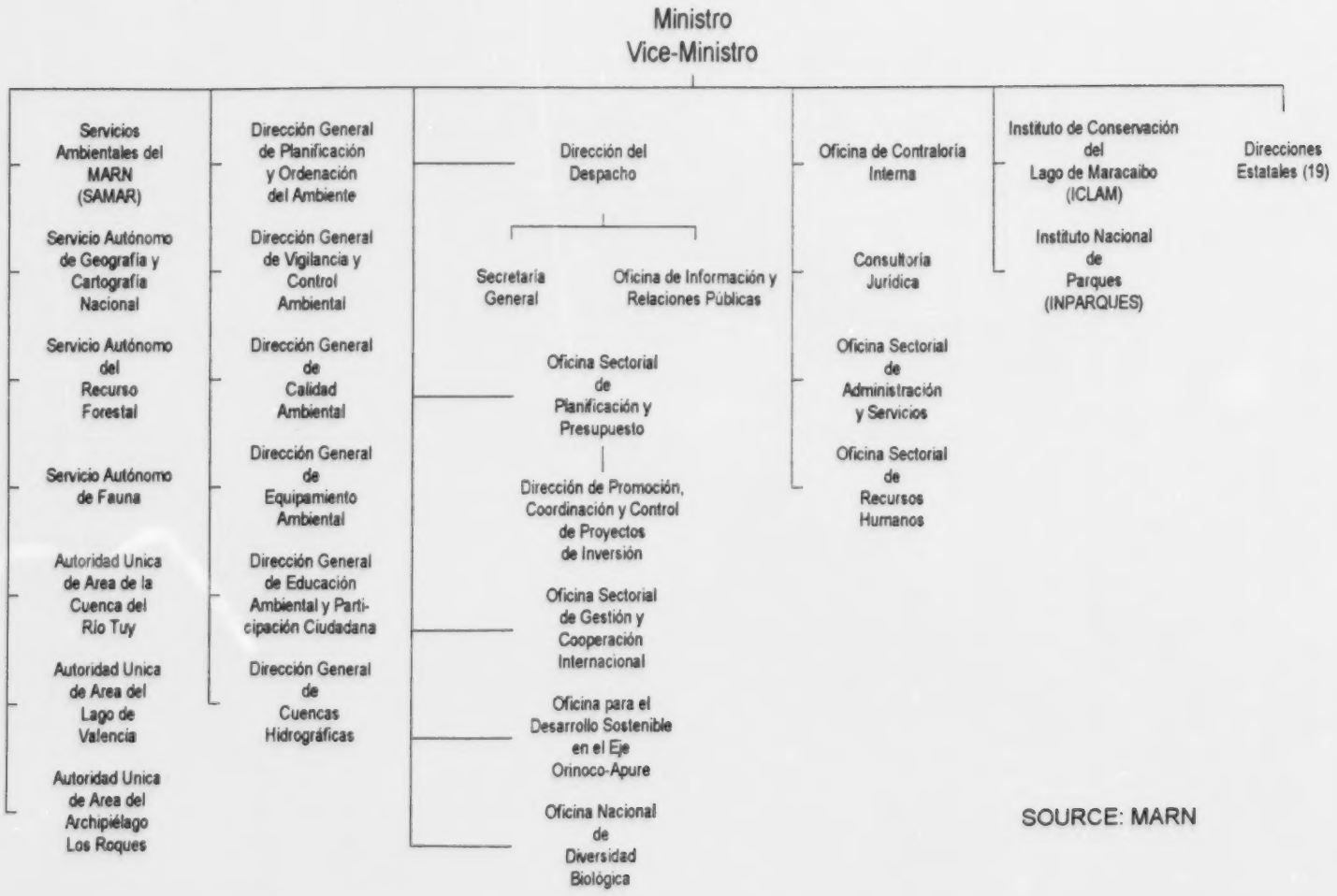
- **THE AUTONOMOUS FOREST RESOURCES SERVICE** ***(Servicio Autónomo del Recurso Forestal)***

Responsible for promoting and guiding a harmonic relationship among the use, handling and conservation of forest resources tending to their development and in accordance with the environmental policy.

3.1.4 Organization Chart (year 2000)

The information on MARN's protocol list in included in Schedule A.

MARN ORGANIZATION CHART YEAR 2000


Ministro
Vice-Ministro
Servicios Ambientales del MARN (SAMAR)
Servicio Autónomo de Geografía y Cartografía Nacional
Servicio Autónomo del Recurso Forestal
Servicio Autónomo de Fauna
Autoridad Unica de Area de la Cuenca del Río Tuy
Autoridad Unica de Area del Lago de Valencia
Autoridad Unica de Area del Archipiélago Los Roques
Dirección General de Planificación y Ordenación del Ambiente
Dirección General de Vigilancia y Control Ambiental
Dirección General de Calidad Ambiental
Dirección General de Equipamiento Ambiental
Dirección General de Educación Ambiental y Participación Ciudadana
Dirección General de Cuencas Hidrográficas
Dirección del Despacho
Secretaría General
Oficina de Información y Relaciones Públicas
Oficina Sectorial de Planificación y Presupuesto
Dirección de Promoción, Coordinación y Control de Proyectos de Inversión
Oficina Sectorial de Gestión y Cooperación Internacional
Oficina para el Desarrollo Sostenible en el Eje Orinoco-Apure
Oficina Nacional de Diversidad Biológica
Oficina de Contraloría Interna
Consultoría Jurídica
Oficina Sectorial de Administración y Servicios
Oficina Sectorial de Recursos Humanos
Instituto de Conservación del Lago de Maracaibo (ICLAM)
Instituto Nacional de Parques (INPARQUES)
Direcciones Estatales (19)

SOURCE: MARN

3.1.5 Guidelines for Project Approval

The work, plans and projects included in MARN's ordinary budget are implemented according to a schedule of activities prepared for this purpose and in accordance with the provisions of the Bidding Law or the Law on Public Work Concessions and National Public Services, and on prior authorization by MARN as per the respective Agenda (see details in attached table).

MINISTRY OF THE ENVIRONMENT AND NATURAL RESOURCES **GENERAL DIVISIONS PARTICIPATING IN THE DEFINITION OF PROJECTS, WORKS AND STUDIES FOR ENVIRONMENT ASSOCIATED INVESTMENTS**			
	ACTIVITIES		
GENERAL DIVISIONS	**Planning and Budget (*Planificación y Presupuesto*)**	**Co-ordination and Control (*Coordinación y Control*)**	**Development & Implementation Plans and Works (*Ejecución y Desarrollo Planes y Obras*)**
Planning and Budget (*Planificación y Presupuesto*)	Participates and defines its support in the formulation of the Institutional Management Plan which is part of the National Development Plan.	Integrates and co-ordinates the formulation and implementation of the plans, programs and budgets submitted by other MARN divisions. Evaluates the physical and financial performance of the plans and works by MARN and its associated bodies.	Develops the feasibility studies for bilateral and multilateral agreements and projects and their presentation at such entities.
International Management and Co-operation (*Gestión y Cooperación Internacional*)	Advises on the definition of Venezuelan standing on environmental matters.	Identifies and captures international co-operation modalities.	
Sustainable Development Orinoco–Apure Development Zone (*Desarrollo Sostenible Eje Orinoco-Apure*)	Formulates projects to be implemented in the Orinoco – Apure centre line		Implements the plans, projects and works associated with the Orinoco – Apure centre line
Vice Minister (*Dirección General*)		Conducts and co-ordinates MARN's bids.	
Territory Planning (*Planificación y Ordenación del Territorio*)	Issues strategic guidelines for the preparation of MARN's budget.	Co-ordinates the insertion of the Environmental Policy within the Nation's Plan. Manages and decides on the spatial location of projects classified as significant at national and regional levels.	

Environmental Equipment (*Equipamiento Ambiental*)	Prepares the Plan for Environmental Equipment Works in co-ordination with the Budget Office.	Formulates and co-ordinates with other official entities the norms related to the implementation of hydraulic works.	Develops the implementation of environmental equipment and sanitation works, as well as their operation and maintenance.

3.1.6 Budget Year 2000

In the budgetary scope, the assignment of funds is focused on the activities listed in the following table:

MINISTRY OF THE ENVIRONMENT AND NATURAL RESOURCES
SUMMARY OF GLOBAL AND ENVIRONMENTAL INVESTMENTS

General Direction	Activity	Budget (US$)
Biodiversity National Office	Biodiversity Strategy Studies	602,121
	Phytogenetic Resources Studies	15,152
	Germoplasm Bank Project	75,758
Environmental Planning	Economic Activities Location Studies	181,818
	Environmental Planning Studies	354,545
	Environmental Management Instruments	118,182
	Land Use State Plans	136,364
	Land Use Urban Plans	90,909
Environmental Engineering	Works Inspections	606,061
	Drainage Studies	454,545
Studies and Projects	Flood Control Projects	1,515,152
	Drainage Basin General Studies	606,061
	Maintenance Works Projects	424,242
	Basic Information Studies	363,636
	Drainage Basin Conservation Projects	363,636
Works Maintenance and Operative Efficiency	Dam Maintenance	666,667
	Works Protection Programs	454,545
	Guaire River Works Maintenance	303,030
	Dam Building	3,939,394
	Slope Conservation Programs	166,667
	Emergency Works	1,060,606
	Ministry Buildings' Maintenance	151,515
Special Project Co-ordination	Work Inspection in Central Coastal Areas	984,848
	Environmental Works in Central Coastal Areas	14,696,970
	Environmental Works in Valencia Lake	1,363,636
	Environmental Work Studies and Projects in Valencia Lake	303,030
	Works Inspection in Valencia Lake	8,553
	Environmental Studies and Projects in the Tuy River	227,273
	Works Inspection on the Tuy River	530,303
	Water Resources Projects	9,015,152
	Platform in the Aves Island	3,030,303
Orinoco-Apure Development Programs	Environmental Diagnosis	909,091
	Studies and Projects	4,106,061
	Environmental Management Evaluation	575,758
	Environmental Equipment	265,152
	Information Systems	2,954,545
	Environmental Equipment of Cities and Towns	303,030
	Improvement Programs of Navigation Channels	1,969,697
	Sustainable Development Program	363,636
	Supplementary Studies and Projects	2,590,909

Forest Resources	Forestry Development Plans	118,182
	Ministry Buildings Maintenance	45,455
Drainage Basin Office	Drainage Basin Plans and Studies	53,030
National Institute of Parks	National Parks Maintenance	15,106,061
Maracaibo Lake Committee	Maracaibo Lake Conservation Programs	2,904,242
Botanical Institute	Maintenance and Conservation Programs	36,364
Hydrological Company of Venezuela	Development of Water Supply Systems	65,396,970
Yacambu-Quibor Company	Works for the System	4,545,455
Hydrological Central Region	Maintenance and Conservation Programs	19,696,970
Total		**164,751,280**

3.1.7 How to Register at MARN

Environmental service companies need to register with MARN, the regulating entity on the matter, for some fields of expertise. The areas of activity that need to fulfil this requirement are: Environmental consulting, water quality analysis laboratories, air and dangerous waste analysis laboratories, storage companies, transportation companies and companies engaged in dangerous waste treatment and disposal. The documents to be submitted are listed next.

This procedure is carried out at the General Division of Environmental Quality (*Dirección General de Calidad Ambiental*) of MARN, located in Torre Sur, Centro Simon Bolivar, Piso 28, Caracas.

3.1.7.1 Consulting Companies

- Completion of the application form for registration in the Environmental Consulting Registry (*Registro de Empresas Consultoras*).
- Payment of the registration application fee.
- Photocopy of the Mercantile Registry (*Registro Mercantil*) or the Memorandum of Association.
- Profile of the Consulting Company and equipment list.
- Curriculum Vitae of professional staff and registration in the respective professional associations. Letter signed by every professional working for the consulting company stating his/her contract terms.
- Documents with experience in the field of expertise.
- International companies should provide the mentioned information in Spanish, certified by the Venezuelan Embassy or Consulate in their country of origin. Additionally, international companies should have offices in Venezuela or national representative.
- Payment for registration.
- Issue of an Official Letter (*Oficio*) notifying registration at MARN.
- The registration should be renewed annually. Environmental consulting companies should notify any modification or change of the submitted documents.

3.1.7.2 Air Laboratories

- Completion of the application form for registration in the Environmental Laboratories Registry (*Registro de Laboratorios Ambientales*).
- Photocopy of the Mercantile Registry or the Memorandum of Association of the Laboratory.
- History or profile of the Laboratory.
- Curriculum Vitae of the staff engaged in the activities to establish the requested atmospheric parameters.
- Listing of the parameters to be registered, indicating the evaluation methodology to be used.
- Listing of the equipment and description of all the technical specifications related to the analyses to be registered.
- Payment of the inspection fee.
- Inspection to be carried out by MARN.
- Payment for the standardization stage.
- Quality control through standard samples.
- Payment for authorization.
- Issue of the Authorization's Official Letter by MARN.

3.1.7.3 Water Laboratories

- Completion of the application form for registration in the Environmental Laboratories Registry (*Registro de Laboratorios Ambientales*).
- Photocopy of the Mercantile Registry or the Memorandum of Association of the Laboratory.
- Profile of the Laboratory.
- Curriculum Vitae of the staff engaged in the activities to establish the requested water parameters.
- Complete the form for methods and equipment for the analysis of residual waters, in agreement with the parameters that the laboratory is capable of conducting.
- Present an inventory of the materials of glass and reactants present in the Laboratory
- Payment for the rights of inspection
- Inspection to be carried out by MARN.
- Payment for the standardization stage.
- Quality control through standard samples.
- Payment for authorization.
- Issue of the Authorization's Official Letter by MARN.

3.1.7.4 Waste Laboratories

- Completion of the application form for registration in the Environmental Laboratories Registry (*Registro de Laboratorios Ambientales*).

- Photocopy of the Mercantile Registry (*Registro Mercantil*) or the Memorandum of Association of the Laboratory.
- Profile of the Laboratory.
- Curriculum Vitae of the staff engaged in the activities to establish the requested atmospheric parameters.
- Listing of the parameters to be registered, indicating the evaluation methodology to be used.
- Listing of the methods and equipment for the analysis of wastes related to the parameters that the laboratory is capable of analysing.
- Present an inventory of the materials of glass and reactants present in the Laboratory
- Payment of the inspection fee.
- Inspection to be carried out by MARN.
- Payment for the standardization stage.
- Quality control through standard samples.
- Payment for authorization.
- Issue of the Authorization's Official Letter by MARN.

3.1.7.5 Storage of Non Radioactive Hazardous Waste

Application letter enclosing the following documents:

1. Copy of the company's Mercantile Registry.
2. Conformity of use for territory occupation[24] granted by MARN.
3. A blueprint indicating the following:
   - 3.1. Area of the land lot assigned to the operation.
   - 3.2. Location of the available facilities and those to be installed.
   - 3.3. Location of the loading and unloading area.
4. General project description.
5. Blueprints and specifications for facilities and buildings, including those for prevention and control of environmental contamination.
6. Description of the storage centre operating methods.
7. Staff list, including curriculum vitae of the technical staff.
8. Plan for emergency control.
9. Copy of an insurance policy against the risks characteristic of the operation.

---

[24] To obtain this conformity of use, the interested party should send an application to the respective Zone Co-ordination of MARN enclosing:
- Brief description of the project to be developed
- Documents evidencing the rights over the proposed land lot
- Information to proof compliance with the "Criteria for the Storage of Dangerous Waste"

3.1.7.6 Transportation of Non Radioactive Hazardous Waste

Application letter enclosing the following documents:

1. Copy of the company's Mercantile Registry.
2. Information about the type and general characteristics of the wastes that the company will be capable of transporting
3. Information about the type and characteristics of the vehicles proposed for the transportation
4. Manual of operations for the drivers
5. Description of the methods of the storage centre
6. List of the staff in charge of the operation, specifying the duty of each one.
7. Plan for emergency control.
8. Copy of an insurance policy against the risks characteristic of the operation.

3.1.7.7 Non Radioactive Hazardous Waste Treatment

Application letter enclosing the following documents:

1. Copy of the company's Mercantile Registry.
2. Conformity of use for territory occupation[25] granted by MARN.
3. A blueprint indicating the following:
   - 3.1. Area of the land lot assigned to the operation.
   - 3.2. Location of the available facilities and those to be installed.
   - 3.3. Location of the loading and unloading area.
4. General project description.
5. Blueprints and specifications for facilities and buildings, including those for prevention and control of environmental contamination.
6. Staff list, including curriculum vitae of the technical staff.
7. Plan for emergency control.
8. Copy of an insurance policy against the risks characteristic of the operation.

---

[25] To obtain this conformity of use, the interested party should send an application to the respective Zone Co-ordination of MARN enclosing:
- Brief description of the project to be developed
- Documents evidencing the rights over the proposed land lot
- Information to proof compliance with the "Criteria for the Storage of Dangerous Waste"

3.1.7.8 Final Disposal of Non Radioactive Hazardous Waste

Application letter enclosing the following documents:

1. Copy of the company's Mercantile Registry.
2. Conformity of use for territory occupation[26] granted by MARN.
3. A blueprint indicating the following:
   3.1. Area of the land lot assigned to the operation.
   3.2. Location of the available facilities and those to be installed.
   3.3. General project description.
4. Blueprints and specifications for facilities and buildings, including those for prevention and control of environmental contamination.
5. Staff list, including curriculum vitae of the technical staff.
6. Plan for emergency control.
7. Copy of an insurance policy against the risks characteristic of the operation.

3.1.8 Companies Registered at MARN

This information is included in Schedule B.

3.2 PETROLEOS DE VENEZUELA, S. A. - PDVSA

3.2.1 Overview

The sustained growth of oil activities has permitted the increase of oil production capacity and, accordingly, Venezuela continues to be a secure and reliable supplier in the main international markets.

In the past years, the greatest part of the investments was for exploration and production. An intensive program of drilling of exploratory wells, rehabilitation and servicing of wells, secondary recovery and vapour injection, among other activities, permitted that goals of proven crude reserves be surpassed and confirmed the sound position of Venezuela in the world oil market. All this without taking into

---

[26] To obtain this conformity of use, the interested party should send an application to the respective Zone Co-ordination of MARN enclosing:
- Brief description of the project to be developed
- Documents evidencing the rights over the proposed land lot
- Information to proof compliance with the "Criteria for the Storage of Dangerous Waste"

account the resources of the Orinoco Oil Belt designated for the manufacture of Orimulsion® and synthetic crude, and the natural gas and the coal located in the western area of the country.

The broad investment scope offered by the oil opening to private capital permitted significant progress in projects of various modalities that are being developed within this strategy. Investment consortia for the new risk exploration and production areas under the shared-profit scheme have permitted the many environmental studies prepared by universities, foundations, conservation organizations and consulting companies.

Consortia from several countries have participated in the oil fields reactivation program under the modality of Operation Agreements (20 years), together with an active contribution by the Venezuelan private sector as field operator. This includes a series of investments and the construction of infrastructure. Similarly, the development of new businesses with third parties to stimulate the exploitation of the Orinoco Oil Belt resources has been significant and successful, and environmental evaluations have been a crucial part of such new businesses.

Regarding the gas sector, PDVSA is re-establishing its wish to exploit the large natural gas reserves located north of the Paria Peninsula. On 3/23/2000, a Memorandum of Understanding was signed among PDVSA, Mitsubishi, Exxon-Mobil and Shell for the *Venezuela Project of Liquefied Natural Gas (GNL)* with an investment of US$2 billion. Shareholding participation is yet to be defined, but it is estimated that PDVSA will have less than 20%. The bids will begin this year and project operations will start in the year 2005 for a 30-year term.

On the other hand, in the past years PDVSA has supplied approximately 1,000 MBD derivatives from the country's refineries and approximately 2,000 MBD from refineries abroad owned by PDVSA (Netherlands Antilles, United States and Europe). Both national and international oil activity has been under careful examination by governmental and non-governmental agencies, the Legislature, communities, ethnic groups, the media and the public in general, which makes it the object of greater requirements, norms and regulations.

Companies have answered by strengthening their preventive, impact control and non-desired event strategies, including the reinforcement of preventing, supervising, awareness and staff training action. The effort to supply national and international markets with cleaner and safer products continues with the help of technological innovation and the modernization of facilities and processes.

The new developments, both the ones owned by PDVSA and those in association with third parties, not only increased the risks but also took operations to non-disturbed areas with highly sensitive ecosystems and the presence of indigenous communities. This has required greater attention to ensure the incorporation of measures lessening the social impact of such projects and the fulfilment of environmental and industrial sanitation and safety norms and regulations within cost-benefit criteria.

As of 1994, PDVSA is adjusting its facilities to meet the national environmental norms regulating effluent discharge and atmospheric emissions. In this context, 63 projects were completed in the 1994-1998 period, which represents an overall increase by 52% of the effluent and emission compliance projects committed to and authorized by MARN. This effort will continue in the 1999-2008 Business Plan. These actions will permit the reduction of effluents and emissions below the limits established by environmental legislation.

PDVSA. PLANS OF ENVIRONMENTAL REGULARIZATION

	1994	1995-2002	2003-2008
Exploration and Production			
Effluents (1)			
Manufacturing and Marketing			
Effluents (2)			
Emissions (3)			
Pequiven			
Effluents (4)			
Emissions (5)			

(1) 28 ready/57 total; (2) 12 LISTOS/22 total; (3) 5 ready/19 total;
(4) 11 ready/12 total; (5) 7 ready/11 total

Work is additionally being carried out for the elimination of accumulated waste and the sanitation and recovery of affected areas, including a total of 400 thousand tons of waste, 570 pits and over one thousand hectares of recovered land.

Investments in Safety, Sanitation and the Environment for 1991-1998 reached US $ 413.3 billion of which it is estimated that 70% went to the environmental sector, as shown next:

1991	12,3	**1995**	33,8
1992	15,8	**1996**	112,1
1993	15,0	**1997**	106,7
1994	24,5	**1998**	93,2

Finally, environmental investments for the years 1996-1999 are shown next.

YEAR	INVESTMENTS (BILLIONS OF US $)
1996	66.971,2
1997	67.815,2
1998	58.672,7
1999	65.048,5
TOTAL	268.459,1

3.2.2 Corporate Organizational Structure

Since its creation in 1976, Petroleos de Venezuela, S. A. (PDVSA) has become one of the world's leading energy corporations. PDVSA is the parent company of the Corporation, which is owned by the Republic of Venezuela, and is charged with the development of the petroleum, petrochemical and coal industry, and is responsible for planning, co-ordinating, supervising and controlling the operational activities of its divisions, both in Venezuela and abroad.

PDVSA carries out exploration and production to develop oil and gas, as well as production of bitumen and heavy crude from the Orinoco Oil Belt, and manufacture of Orimulsion.

PDVSA is also responsible for developing the coal industry in Venezuela. PDVSA holds a leading position among world refiners, and its direct manufacturing and marketing network covers mainly Venezuela, the Caribbean, the United States and Europe. It is also active in the areas of petrochemical production, research and technology development, as well in industry-related activities of education and training.

After two decades of activities, PDVSA has become a front rank corporation both in the national and international arena. It holds a prominent position among the world's oil companies because of its production level, reserves, installed refining capacity, net profits and sales.

PDVSA has made a timely decision in responding to the challenge of remaining competitive and profitable in the world energy scene. Toward this end, it has initiated the transformation of its corporate structure with the fundamental goal of redefining the role of the parent company and consolidating its operational structure.

In this direction, the Venezuelan energy corporation, at the end of 1997, founded PDVSA Petroleo y Gas, the head of three major divisions responsible for the core activities of the business: PDVSA Exploration and Production, PDVSA Manufacturing and Marketing, and PDVSA Services. Each one of these divisions is composed of various companies and business units, located both in Venezuela and abroad.

A new reorganization of PDVSA is currently taking place and its implementation is expected in the coming months. PDVSA's organization chart in force by March 2000 is shown next.

3.2.3 Opening Process (*Apertura*)

The Venezuelan oil industry is carrying out an opening process, which complements its overseas downstream investment strategy. According to the legal framework approved by the Venezuelan Government, PDVSA is promoting private participation in its business activities. The opening of the

Venezuelan oil industry includes operating service contracts for the reactivation and development of mature oil fields; strategic associations for crude production in the Orinoco Oil Belt and the development of natural gas offshore. PDVSA has also signed joint ventures for the development of Orimulsion®, production units and agreements with private companies in the coal and petrochemical sectors.

Investors from the USA, Germany, Japan, UK, France, Canada, Argentina and Venezuela, were the winners of PDVSA's Exploration Bidding Round of untapped areas. They are now preparing to participate with CVP in the production of these areas, under a profit sharing agreement.

In this last stage, the participating companies presented their offers to the Contracting Committee presided over by PDVSA.

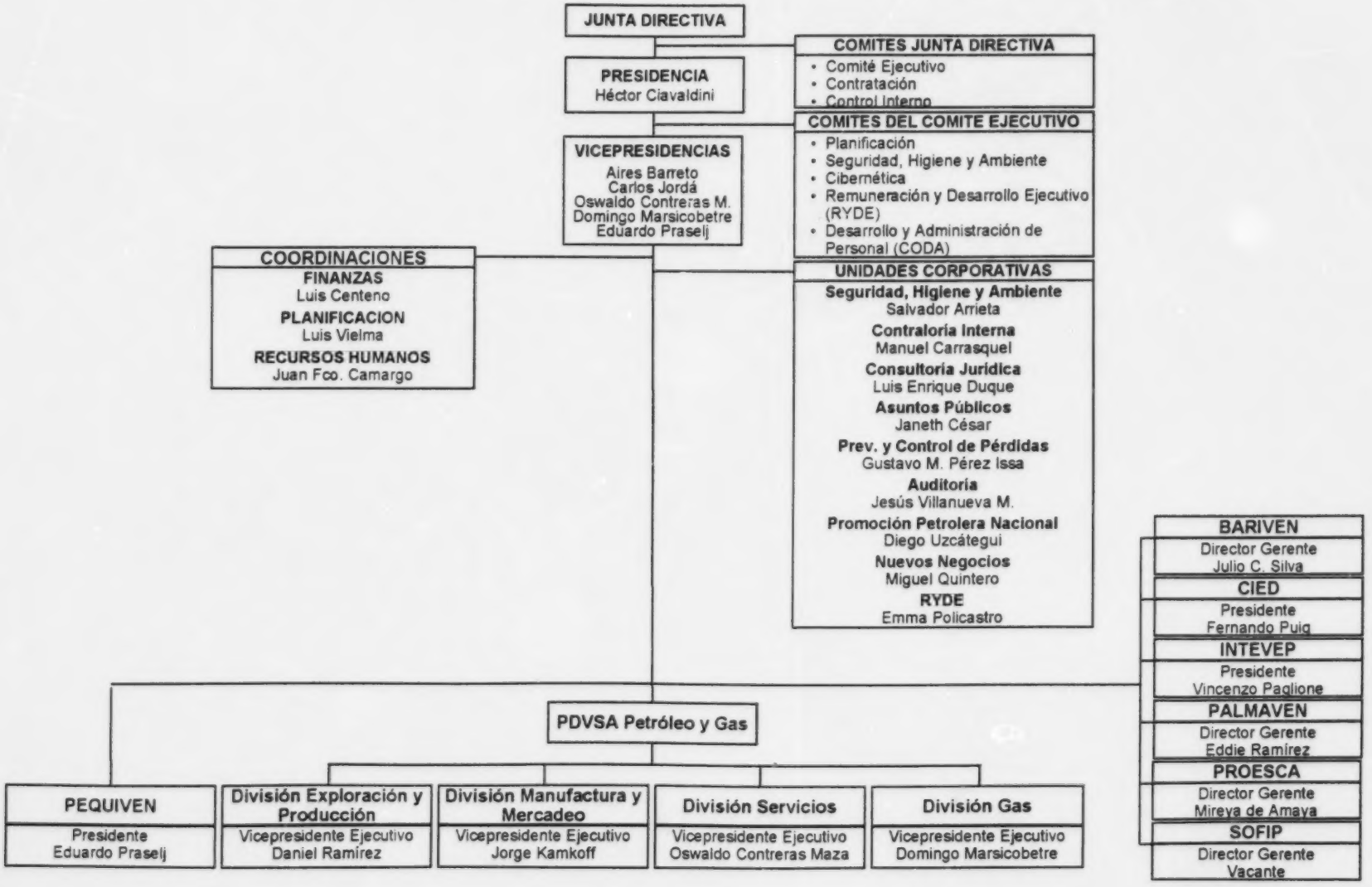
Eight of the 10 areas on the auction block were bid on. The maximum profitability bonus "PEG" was established at 50% in 5 of them. To declare the winner in cases of tie, bonuses were offered in 4 areas. The total of the bonuses reached US$ 244.9 million and represents immediate income for the country.

During the round, 29 offers were received from a total of 44 companies comprising 23 consortia. In the 8 winning areas 14 companies of 8 different countries participated.

Area	Consortium
La Ceiba	Mobil (USA) [1] Veba Oil (Germany) Nippon (Japan)
Gulf of Paria W.	Dupont Conoco (USA) [1]
Guanare	Elf Aquitaine (France) [1] Dupont Conoco (USA)
Gulf of Paria E.	Enron Oil & Gas (USA) [1] Inelectra (Venezuela)
Guarapiche	BP (Great Britain) [1] Amoco (USA) Maxus (Argentina)
San Carlos	Perez Companc (Argentina) [1]
Punta Pescador	Amoco (USA) [1]
Delta Centro	L.L & E Co (USA) [1] Norcen (Canada) Benton (USA)

[1] Operator

PDVSA ORGANIZATION CHART (march 2000)



3.2.4 Private Investment

PDVSA is promoting private investment in projects that will use available refinery streams for the manufacture of the petrochemical products. Potential partners will contribute with both financial resources and technological know how to these ventures. Plants will be built in industrial parks next to PDVSA's main refineries.

A substantial proportion of PDVSA's production of refined products is sold in the Venezuelan market, PDVSA's "second largest client". A larger opening in this market will allow the participation of the private sector in the distribution of products to consumers. Although national law reserves most of the activities related to oil production and marketing to the State, the private sector participates through contracts with PDVSA's retail marketing unit, in activities such as: storage, transportation, distribution, and retail of hydrocarbons. The private sector also participates in the industrialization of manufactured products such as asphalt, kerosene, basic oils and solvents.

PDVSA's Business Plan calls for a rational use of hydrocarbons in the Venezuelan market and emphasises the need to establish a pricing system based on the alternate export value. Through this scheme, the private sector should be able to market PDVSA's products in the national market.

PDVSA has made associations for oil exploration and development (E&P) activities with private partners. This proposal is the latest step in a progressive opening of the Venezuelan oil industry to private participation, both foreign and national.

In its E&P proposal, PDVSA foresees that these activities be carried out under the terms of exploration risk contract and profit-sharing agreement covering development, production and marketing of crude oil and natural gas.

3.2.5 Exploration Activities

The activities carried out in the exploration area, are the riskiest and most determining aspects of the hydrocarbon industry. Their success defines this industry's remaining and extended development.

Exploratory efforts are primarily focused on the search for new reserves of light and medium grade crude oil for the expansion plans to increase production capacity. Also important is information found concerning potential development of prospective areas. Seismic programs and exploratory re-entry are also effectively carried out. PDVSA's proven reserves of crude raised to 72.574 billion barrels. Production capacity of crude and condenses has reached 3.416 million barrels per day.

3.2.6 Gas Development

Reserves of natural gas are 143 trillion cubic feet, which ratifies Venezuela's position as the leader in gas reserves in Latin America and as fifth in the world. Natural gas production capacity was 6,053 billion cubic feet per day, with an average production of 5,274 billion. The extraction capacity of natural gas liquids (NGL) was 226,000 barrels per day and production, including ethane, totalled 177,000.

The Cristobal Colon gas project is part of an association signed in 1994 with Shell, Exxon and Mitsubishi. Studies have been completed which make it possible to achieve a high degree of technical and economic definition of the project. Considering these studies and the behaviour of natural gas prices on the international market, the deadline for investment was extended for 5 years.

3.2.7 Oil Opening Projects

The risk exploration program and production of hydrocarbons under the profit sharing scheme, received valuable support from the Congress of the Republic.

The Third Operating Agreement Round, part of Venezuela's oil field reactivation program, was held successfully.

Total investments made through these agreements amounted to 825 million dollars, reaching a production capacity of 75,000 barrels per day.

To develop the resources of the Orinoco Oil Belt, PDVSA has signed several strategic association projects with private companies.

- **Jose Terminal**

New deep water crude oil terminal outsourced in 1998. The TAEJ (initials in Spanish) was built by PDVSA at the Jose area in the State of Anzoategui, Venezuela. The terminal has an initial capacity of about 800 MBD of crude oil and is able to load vessels of up to 250.000 DWT.

The terminal was sold to Williams International, Enbridge International and Northville Industries (Wilpro) for US$385 MM, who will provide storage and ship loading services to PDVSA and to the Strategic Associations of Cerro Negro (Mobil, Veba and PDVSA), Sincor (Total, Statoil and PDVSA) and Hamaca (Texaco, Phillip, Arco and PDVSA).

- **PIGAP II**

High pressure gas injection project, one of its kind in the world, recently outsourced and awarded to Wilpro (Williams International and Production Operators Inc). This is a "Build, Own and Operate" (BOO) project related to gas compression services (@9000 psi) with a capacity of 1200 MMSCFD and an estimated cost of about US$400 MM.

- **PIGAP III**

This venture is currently being structured. It will be treated as a "Build, Own and Operate" (BOO) for a new gas compression facility, but may also involve the sale of the existing PIGAP I facility, which was built by PDVSA and is currently in operation. Overall capacity is in the order of 1000 MMSCFD. This is also considered a very attractive venture being an immediate cash flow generating project.

- **SERCOGAS**

Multipackage gas compression deal, currently being structured. It involves the sale of existing assets and construction, ownership, operation and maintenance of new assets. Total overall cost is estimated at about US$4000 MM. This deal covers substantially all of the gas compression requirement for crude oil production operations in Venezuela and its multipackage nature greatly increases the opportunity for a wider number of potential investors.

- **CRUDE OIL FIELD AUTOMATION**

This deal is focused on optimization and cost reduction for reservoir management and exploitation in select fields. The project, based on similar experiences in the North Sea, is currently under evaluation by PDVSA. Potential investors would be expected to supply hardware, software and maintenance for the above mentioned activities.

- **EASTERN PIPELINE**

Joint Venture deal being structured by Mobil, Veba Oel, Cerro Negro (Cerro Negro Association) and PDVSA for the construction, ownership, operation and maintenance of a shared pipeline system in Eastern Venezuela. It has an estimated capacity of 800 MBD of crude oil. The system involves a heavy crude pipeline from the fields located in the Orinoco Oil Belt to the Jose area and a diluent pipeline from Jose to the fields. The participants in the Hamaca Strategic Association will also use this system. The possibility of having an independent operator with equity participation is being discussed.

- **DEEP WATER TERMINAL**

A Joint Venture deal being structured between BP Amoco and PDVSA for the construction, ownership, operation and maintenance of a shared pipeline and terminal system to enhance crude oil transportation, storage and ship loading capabilities for further development of proven reserves in Eastern Venezuela. This project (TAP in initials in Spanish) also includes the probability of discovery of commercial reserves by PDVSA and private oil companies operating in the same area, under the oil opening scheme. The joint venture structure considers an independent operator with equity participation.

The system will be comprised of a collection, storage and pumping station in Caripito, Monagas state, with an initial throughput capacity of 400 MBD and enough flexibility to allow an expansion of up to 600 MBD, a 36" crude oil pipeline from Caripito to Guiria, Sucre state, and a deep water crude oil terminal Southwest of Guiria with an initial capacity of 400 MBD and the flexibility for expanding up to 1.4 MMBD.

- **POWER GENERATION IN BARINAS AND APURE**

A 30 MW power generation deal (SEBA in Spanish initials) is being structured in order to supply electricity to PDVSA's oil fields located in Apure State. This deal, of a "Build, Own and Operate" (BOO) nature, may also include the sale of existing power generation plants (7,5 MW) currently in operation.

The project will also include energy requirements by PDVSA for the operations of its fields in the adjacent Barinas State, where actual demand is in the order of 15-20 MW. Depending on economic costs, this energy could be supplied from local companies or the mentioned venture and can also be subject to new exploratory areas demand may increase up to 45 MW.

- **WESTERN ELECTRICAL SYSTEM**

This deal (SEO in Spanish initials) also combines the sale of existing assets and of additional facilities for transmission and distribution of electrical power (115 to 13,8 kV) for crude oil production operations in Eastern Venezuela. Overall investments estimate is US$200 - 400 MM.

3.2.8 PDVSA Refining System

PDVSA's strategies have been designed to ensure a stable demand for its crude characterized by a large proportion of heavy and extra heavy crude oil that can be economically processed in a relatively small number of complex refineries world-wide.

According to this, the investment program in the domestic Venezuelan refineries has resulted in a change from a simple conversion to a deep conversion system. In addition, through its principal foreign subsidiaries, PDVSA has acquired either ownership of or equity interests in eighteen refineries in the United Stated of America, Germany, Sweden, Belgium and the United Kingdom, with a net capacity of one million 455 thousand barrels per day attributable to PDVSA's interests.

PDVSA has a leasehold interest in the Refineria Isla (Curacao) S.A., located in Curacao, the Netherlands Antilles, with a total capacity of 335 thousand barrels per day.

PDVSA's refining system has a total of 24 refineries located in Venezuela, the United States and Europe. It processes an average of 2 million 415 thousand barrels per day of crude.

PDVSA has completed major refining projects designed to ensure the corporation's future competitive position in consumer markets, especially regarding environmental requirements in product specifications. At the same time, the refining system's flexibility to process greater volumes of heavy crude while reducing residual fuel production has also increased.

The project to integrate the Amuay and Cardon refineries, both locate in the Paraguana peninsula, Falcon state, was completed. This synergy made it possible to optimise the product packages manufactured at both refineries which, added to the previous networks, generate earnings on the order of 80 million dollars per year through the manufacture of products with high commercial value.

3.2.9 Orimulsion®

Orimulsion® is the brand name given to a fossil fuel produced from natural bitumen mixed with water. It has been widely used commercially, proving its value as an economically attractive fuel alternative in electricity generation. Venezuela's vast natural bitumen reserves (42 billion metric tons) guarantee a reliable supply of Orimulsion® until well into XXII century.

The product is shipped in double-hull tankers. Extensive tests have been carried out on containing and recovering Orimulsion® spills, both in marine terminals and the open sea, and contingency plans have been designed to handle such a possibility. One of the successful techniques evaluated is the use of deep skirted booms, which extend vertically some 2 to 3 meters under the surface, to contain the spill, allowing the recovery of the bitumen droplets through the use of submersible pumps. Once the droplets are at the surface, a coalesced bitumen slick is formed. The slick can be recovered using existing conventional heavy oil skimmers.

PDVSA's is planning to increase the exportation of Orimulsion ® up to 20 million metric tons per year by the end of this decade. This new fuel offers an important economic alternative for utility companies. To consolidate this expansion plan, PDVSA, through its company BITOR, will constitute joint ventures

with private investors. These partnerships will also help to increase the position of this product in the market.

Orimulsion ® can be burnt in conventional boilers, using proven pollution control technologies and complying with existing environmental legislation. The main characteristics of Orimulsion® emissions are:

- Free of acid spots
- Proven high collection efficiency in electrostatic precipitators
- Minimum amounts of unburned carbon and hydrocarbons
- Comparable to high sulphur fuel oil
- Removal can be effected with several commercially available processes to desulphurise combustion gases.
- Comparable heavy fuel oil
- Can be used with low NOx burners, reburning schemes, and other available technologies for further reduce emissions.
- Does not produce methane.
- CO2 emissions are much lower than in coal, and are similar to those of fuel oil.

3.2.10 New Projects

Since the beginning of the oil opening process, the Venezuelan Congress has approved various strategic associations.

The Cristobal Colon Project for the development of offshore natural gas resources in Eastern Venezuela; the PDVSA-Conoco, and the PDVSA-Total-Statoil-Norsk Hydro associations for the production and upgrading of extra-heavy crude from the Orinoco Oil Belt.

PDVSA has also signed a letter of intent with ARCO-Texaco-Phillips, with the objective of producing and upgrading extra-heavy crude from the Belt, with a goal production of approximately 189 thousand barrels per day, of 9 degrees extra-heavy crude from Hamaca, located south of El Tigre, in Anzoategui state.

PDVSA carries out an association with Mobil-Veba Oil. The Cerro Negro I Project which contemplates to produce, improve, refine and commercialise 120 thousand barrels of virgin extra heavy crude per day, from the Orinoco Oil Belt.

These agreements were designed to increase PDVSA's production capacity by introducing private investment capital and new technology, which may result in new discoveries in mature oil fields. During

the last years, PDVSA has successfully completed two rounds of international bidding for the operation of 14 inactive or marginal oil fields.

3.2.11 Petrochemistry

All areas of PDVSA's petrochemical industry are open to the participation of the private sector. PDVSA's company Pequiven is dedicated exclusively to the petrochemical business. The corporation operates 13 wholly owned petrochemical plants and participates in 19 joint ventures with the Venezuelan private sector and foreign investors. Seventeen of these joint ventures are presently operating and two are under development. To carry out production activities and commercial operations, Pequiven is organized into three business units: olefins and plastics, fertilizers and industrial products.

3.2.12 Coal

PDVSA's coal industry is developed in western Venezuela. The corporation is striving to achieve a stronger presence in international markets, in particular Europe and the Far East.

The major coal region in Venezuela is the Guasare Basin in Zulia state near the Colombian border. PDVSA, through its wholly owned company Carbozulia, and in association with private capital, is responsible for the development of the Guasare Basin to some 19,5 million metric tons by 2003. A joint venture has been established with international private investors (Shell, Ruhrkohle and Interamerican Coal n.v) for the development of Paso Diablo, Socuy, Norte and Cachirí mines.

3.2.13 Environment

Environmental protection is a priority for PDVSA, in its purpose of searching the development of the industry in combination with the communities and personal security. This principle is based on politics, programs and actions that require the investment of important technical and human resources for preserving the environment.

The corporation, specifically, acts to prevent and control situations that may affect the environment in operational areas, does research to minimize environmental impact on industrial activities, gives support to institutions responsible for nature conservation and follows campaigns to make people aware of environmental safety.

PDVSA also invests in manufacturing clean products, effluent treatment systems, control over atmospheric emissions, industrial wastes disposition, earth conservation and construction of atmospheric infrastructure.

Referring to contingency prevention, plans are updated and manpower and technical resources go through simulacrum to prevent crude and product spills. A well-prepared personnel allows evaluating and demonstrating efficiency in using equipment and handling established procedures.

Continuing its long lasting commitment to conservation, PDVSA carries out programs, which help preserve national parks and provide technical assistance to farmers. In accordance with the corporation's policy of industrial safety, activities on prevention, control of emergencies, safeguarding personnel, installations, and communities in operational areas continued to be reinforced during the year. A total of US $ 43.9 billion were spent on projects which include sulphur content reduction in heavy crude and diesel fuel, and reduction of lead levels in gasoline. Besides, is also a project for developing more effective methods to help control oil spills at sea, and systems to treat and control effluents and atmospheric emissions. It moreover, included handling of industrial wastes and cleaning up affected areas; improvements in emissions and effluents quality in refineries and petrochemical plants; and carrying out environmental impact studies for all major projects. At the same time, bilateral agreements with international companies were signed to handle emergencies concerning operational accidents.

In order to support the oil opening strategy, activities with potential investors were made to work according to Venezuela's environmental legislation and according to the environmental protection aspects of the corporation.

3.2.14 Services

The private sector provides a substantial amount of industrial services to the Venezuelan oil industry. All the operations that are not directly involved in key aspects for the Corporation may be outsource to third parties. Private companies can assume the construction and operation of plants and installations for the generation and distribution of electricity, steam, water, hydrogen, nitrogen, special products management and port services. PDVSA has signed agreements with private investors to operate under this scheme.

PDVSA is engaged in a series of support activities. It accomplishes these goals through an integrated centre of shared services that offers efficient solutions in support to the core business.

The Service sector of the Venezuelan Oil Corporation is responsible for providing competitive and specialized integrated services. It includes a great range of specialities: Legal Counselling, Human Resources, Public Affairs, International Procurement, Administration Services, Engineering and Projects.

3.2.15 PDVSA's 2000-2009 Business Plan

Within the framework of the 2000-2009 Business Plan, PDVSA will promote maximum participation of the private sector and the formation of national capital through investment in the integral development of chemistry, natural gas and Orimulsion® businesses, as well as in other non-core business.

PDVSA will also stimulate a greater participation of the domestic component in the assets and services offered by the suppliers of the Venezuelan oil sector. Moreover, private capital may largely participate in the fields of telecommunications, gas compression, sulphur plants, and polyducts and industrialization of refinery streams.

PDVSA's strategy is to maximize private capital participation with a marked emphasis in the formation of national private capital; re-structure reserves by increasing the proportion of light and medium crude and free gas; improve productivity and competitiveness; re-structure exports by increasing the manufacture of refined products in Venezuela and incorporating the maximum domestic added value to exports; and increase the production of chemical and petrochemical products based on natural gas.

The following strategies were established based on these guidelines: concentrate in oil, refining and trade core activities; promote maximum participation of both national and foreign private sector; stimulate the integral development of the following businesses: natural gas, chemical, petrochemical, industrialization of refinery streams and Orimulsion®.

Disbursements of around US$2.5 billion are anticipated in safety, sanitation and environment to continue with the improvement of facilities, the optimization of risk management systems, the adoption of better systems for crisis handing, the manufacture of products with the required quality, the protection of the environment as a value of corporate culture, the use of technological developments, and the communication and interrelation with outside entities.

Total investment of PDVSA's 2000-2009 Business Plan will be US$53.3 billion, of which US$22.3 billion will be contributed by PDVSA.

Petroleum

It is PDVSA's intention to maximize light and medium crude exploration and production, always in agreement with international market dynamics.

Expectations in the exploratory activity are the identification, by PDVSA effort, of some areas with high prospecting potential. Discovery of huge fields is expected (with volumes above 500 million oil barrels). An aggressive seismic and drilling plan has been proposed for the exploration of broad areas with limited geological information. The exploratory effort considers the incorporation of around 10 billion

barrels of light and medium crude reserves and around 38 billion cubic feet of gas reserves, resulting from own effort and that of third parties through Risk Exploration and Operation Agreements.

The companies that are part of the Operating Agreements will maintain their exploratory programs and it is expected that around 300 million oil barrels will be incorporated this year. The consortia operating in risk exploration areas may discover around 2 billion barrels of oil.

Production volumes will depend on market dynamics, which according to the anticipated scenarios considered will have a restricted volumetric growth in the short term. This requires that the production of light and medium crude by maximized by internal effort and the harmonization of heavy crude commitments with the growth coming from third party efforts. In all cases, PDVSA's overall production capacity will be around 5 million 800 thousand barrels per day for the year 2009.

In this sense, it is estimated that a production capacity of around 2 million 900 thousand barrels per day will be maintained in the traditional areas for the years 2000 – 2005 through activities to be developed with internal effort. Later on, a growth of up to 3 million barrels per day is expected by the end of this period, basically sustained by heavy crude from the eastern area of the country.

The West is concentrated in the field of automation, safety and environment, whilst the East counts with the operating centres of Carito and El Furrial, PIGAP II, sweetening and injections plants at Punta de Mata, among others.

Regarding operating agreements, an increase of their production capacity from 590 thousand barrels per day in 2000 to 950 thousand barrels per day is anticipated by 2006. Decline will then start down to 790 thousand barrels per day in 2009. However, these volumes do not consider the potential contribution of the exploration effort that may result from the operating agreements and the greater volume contribution from the III Round agreements, mainly associated with light and medium crude.

In profit-sharing areas, the first commercial developments are anticipated at the end of 2002 and the beginning of 2003. Estimated production capacity in these areas for 2009 is around 450 thousand barrels per day.

Estimates for the four strategic associations currently in progress at the Orinoco Oil Belt, Petrozuata, Cerro Negro, Sincor and Hamaca, are to reach a bitumen production capacity of 690 thousand barrels per day by the end of 2009, which corresponds to a synthetic crude production of around 630 thousand barrels per day. Additionally, it should be mentioned that new generation options such as upgraders' optimization at Jose and the expansion of Petrozuata or other projects that permit the increase of these volumes, are not being considered.

Total investment in exploration and production by own and third party efforts lies between US$36 billion and US$38 billion, of which 62% will go to the East and 38% to the West. From this total investment, 46% correspond to own efforts, 22% to the strategic associations in the Orinoco Oil Belt, 22% to operating agreements and 10% to profit-sharing.

Regarding the Orimulsion® business, its feasibility is subject to three main factors: (a) the effective materialization of a reduction in costs at a greater speed than the reduction in coal prices; (b) the capture of new stable and growing markets that permit the development of a marketing strategy; and (c) the participation of private capital to undertake the construction of two additional production modules that would permit an increase in production capacity during the period in question from 5 million to 20 million metric tons per year by period end.

Natural Gas

The strategic approach for the natural gas business is based on the combined development of associated and non-associated gas with private capital participation. This includes transmission and distribution systems, as well as the future expansion of processing, extraction and cracking capacity of natural gas liquids (LGN).

Regarding the non-associated gas exploitation business, the Anaco gas field, which plays a crucial role to achieve the expansion expectations of the Venezuelan gas industry, should be mentioned. This development is located in two large geographical areas and has approximately 17 billion cubic feet of reserves. It will provide the supply necessary to meet the domestic market gas demand.

The development of non-associated gas reserves, even in offshore areas, is additionally being considered. This will permit the increase of supplies and provide flexibility in the gas supply system by making it less vulnerable to market changes and crude production. Estimates for these areas are a total potential production volume of around 2 billion 750 million cubic feet per day.

Methane demand in the eastern part of the country will grow from 1 billion 676 million to 4 billion 800 million cubic feet per day during the Business Plan period. The greatest growth comes from the electricity and petrochemical sectors and from incorporation of the country's western area to the gas supply project, and from the export opportunities being considered. The latter may reach 1 billion cubic feet per day by period end.

Regarding investments in the gas sector, a total investment of US$911 MM is anticipated in the Anaco Gas Project for the 2000-2009 period, whilst total investment in non-associated gas with the greatest prospecting potential will reach US$3,000 MM to be distributed among the following areas: Deltana Platform, Paria North, Maracaibo, Coast Mountain Range Flank and South Andean Flank, as shown in the graph.

GAS INVESTMENTS

1 Plataforma Deltana
2 Norte de Paria
3 Maracaibo
4 Flanco Cord la Costa
5 Flanco Sur Andino

Potential Production: 2750 MMPCD

Investments: 3000 MM$

Source: PDVSA

The following should be mentioned regarding the main gas transmission projects required for supply of the domestic market growing demand: expansion of the Anaco-Jose-Puerto la Cruz system that will take care of Jose's growing petrochemical sector and the requirements by crude upgrading associations; the Barbacoa-Margarita gas pipeline mainly intended to take gas to the Luisa Caceres de Arismendi electrical power plant located in Margarita island, as well as to provide gas to neighbouring areas; expansion of the Anaco-Puerto Ordaz system that will supply growing iron works in Bolivar state; expansion of the Anaco-Barquisimeto system, that will cover the rapidly growing industrial area in the Middle-Eastern region, mainly the electricity sector.

The production of natural gas liquids, including ethane, will grow from 200 thousand barrels per day in 2000 to 370 thousand barrels per day at the end of the plan's period. The significant demand of ethane by Pequiven should be emphasised. Ethane will be used as raw material for the ethylene plant of the olefins complex to be built at Jose, the commissioning of which is estimated for the year 2004.

Another strategy to promote the gas business is the development of liquefied natural gas (GNL) export projects. A new GNL project is also being structured in Paria North, including the feasibility of liquefied natural gas from the Loran field in the Deltana Platform.

The total estimated investment in the gas business is approximately US$4 billion.

Chemicals

To take advantage of the potential existing in the Venezuelan chemical sector, PDVSA has formulated a plan based on the competitive development of businesses in three areas: methane and ethane petrochemicals (Pequiven), the industrialization of refinery streams to capture a greatest added value from commonly imported specialities (Proesca) and, finally, the manufacturing of industrial products, including the area of aromatics and derivatives.

It is also contemplated to increase products from the fertilizers, methanol, plastics, oxygenates and aromatics lines from 9 million to 22 million tons per year.

Additionally, in the area of Chemical Developments action is planned to identify important business opportunities such as the manufacture of aromatics: Styrene, Cyclohexane, Cumene and Ethylbenzene based on new infrastructure and the expansion of PDVSA's existing national and international refining facilities.

Projects for the industrialization of refinery streams are being consolidated with Venezuelan partners. The beginning of operations of Ceraven in 2001 and of Alkiven in 2002, should be mentioned. Potential businesses related to Polypropylene, Carbon Black, Naphthenic Acid and Fumaric Acid have also been identified in this area.

Moreover, opportunities have been identified in the manufacture of solvents and lubricant bases in the refining complexes of the Orinoco Oil Belt Strategic Associations, namely at Jose, where project profitability is considered very attractive. Private capital will have maximum participation in all these business opportunities, which will stimulate industrial development in the country and contribute to the diversification of the national economy.

Total investment in the chemical business is estimated in around US$8.7 billion for the plan's period.

Manufacturing and Marketing

The commercial opportunities estimated in Venezuela by the end of the plan's period amount to 5 million 585 thousand barrels per day, what represents an increase of 2 million 330 thousand barrels per days versus 1998. These opportunities do not include domestic market sales.

According to the strategy of strengthening supplementary commercial activities, it is estimated that production will grow from 260 thousand barrels per day in 1999 to over 1 million barrels per day in 2009.

In the refining field, the fundamental approach is to maximize product manufacture in PDVSA's national circuit. To do so, strategies have been established to adjust the refining system to environmental and market requirements and achieve optimum performance in the various circuit refineries, to deepen the synergy with abroad business refineries both from the point of view of operations and commercial exchange, to evaluate the integration of Venezuelan refineries with Oil Belt businesses, and to increase crude processing capacity through maximum use of the capacity available in Venezuela.

Crude processing in Venezuela is expected to increase from 1 million 100 thousand to 1 million 300 thousand barrels per day. This increase in crude processing is associated with an increase in the use of the installed capacity resulting from the improvement of downstream distillation units.

In the national refining system, 55% of the investments will be made to take advantage of opportunities and to improve product quality through the reduction of sulphur content in gasoline and distillates prompted by greater environmental requirements both in Venezuela and foreign markets. Total investment estimated for refining reaches US$2.7 billion in the plan's period.

In the domestic market field, strategies are aimed at consolidating PDV's premium network based on maximum quality for client services and product differentiation through the ranking of new gas stations; network expansion through associations; connected businesses through franchises with third parties and automation of operations at PDV gas stations. The main projects in this sector are associated with

the updating of PDV's network, the creation of lubrication centres and the optimization of airport infrastructure.

Total investment in the domestic market amounts to US$160 million, 75% of which will go to income generation, 18% to safety, sanitation and environment, and 7% to operational continuity.

PDVSA's investments in the 2000-2009 period will reach US$55 MMM (42% directly contributed by PDVSA) and will be distributed in the following manner:

Exploration and production US$38 MMM
Refining US$2 MMM
Natural gas US$5 MMM
Chemicals US$8 MMM
Safety, sanitation and environment US$2,500 MM
Other sectors US$2 MMM

Total investments in US$ MM anticipated by PDVSA (own effort) for the main exploration and production projects are:

West:

✓	Automation:	450
✓	Safety and environment:	100
✓	Other production facilities:	42
	Total	592

South:

✓	Optimisation of flow/environment stations:	19

East:

✓	Carito Operation Centre:	304
✓	Furrial Operation Centre:	302
✓	Anaco Light-Medium Compression Centre:	231
✓	PIGAP III - Punta de Mata:	160
✓	Safety and Environment:	89
✓	Sweetening - Punta de Mata	76
✓	Anaco Condensed Gas Compression Centre:	71
✓	Dehydratation - Punta de Mata	44
✓	Water and Gas Injection - Punta de Mata	21
	Total	1,304

Regarding refining investment for the 2000-2009 period, it is estimated in approximately US$2.7 MMM distributed as follows:

✓	El Palito:	85 MM US$
✓	Puerto La Cruz:	760 MM US$
✓	Cardon Complex:	1,550 MM US$
✓	Isla	275 MM US$
	Total	2,670 MM US$

From this total, it is estimated that18% will be invested in environment and safety.

On the other hand, total investment in the methane gas transmission systems is US$1,609 MM, distributed as follows:

✓	Anaco-Jose-Puerto La Cruz:	188
✓	Barbacoas-Margarita:	93
✓	Anaco-Puerto Ordaz:	45
✓	Anaco Barquisimeto	1.103
✓	Other Investments:	506

Long term investments foreseen for the chemical sector will reach US$9,200 MM, of which US$ 8,700 MM correspond to PDVSA and affiliates in association with third parties for the production of fertilizers, plastics, industrial chemicals, aromatics, refinery streams and infrastructure, and the remaining US$500 MM to third party investments in secondary chemistry and the user industry.

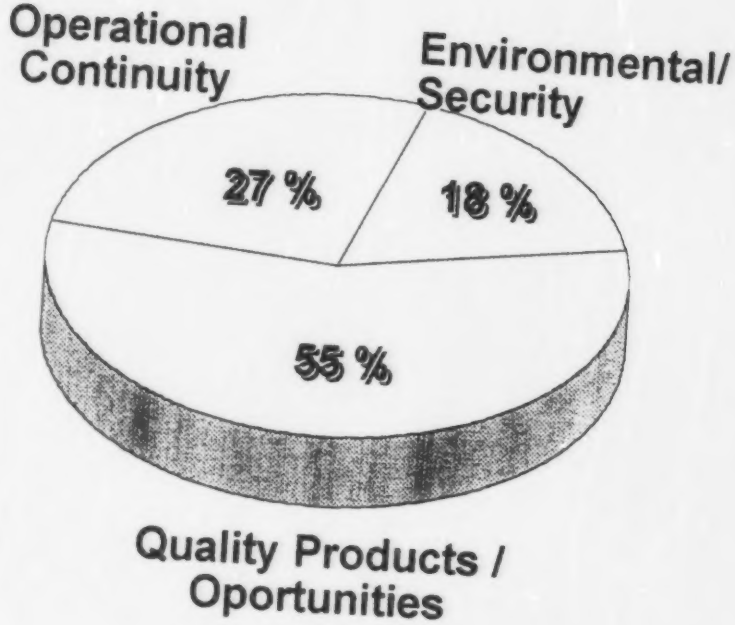
Investments (in US$ MM) in the main chemical sector projects are shown next:

Project	**Total/Pequiven (US$ MM)**
Fertilizers Jose:	
Fertilizers Jose:	
✓ FertiNitro	1.100/115
✓ FertiNitro II	1.100/115
Olefins and derivatives	
✓ Ethane extraction - Jose	195/ ---
✓ Ethylene/PE/Glycols - Jose	2.650/530
✓ Ethylene/PE/Other - Jose	2.650/530
✓ Polypropylene II - Zulia	200/15

Total Investments 2000 - 2009: 2,7 MMM$

Refineries	MM$
El Palito	80-85
Puerto La Cruz	760
CRP	1540- 1550
Isla	270 - 275

Areas



Source: PDVSA

Oxygenates - Jose

✓ METOR Expansion	280/ ---
✓ Acetic acid	210/20
✓ Supermethanol Expansion	280/ ---

Aromatics Paraguana

✓ Styrene	448/90
✓ Cyclohexane	200/40

3.2.16 How to Register at PDVSA

Companies wishing to do business directly with PDVSA and its affiliates are obliged to register with PDVSA´s *Registro Auxiliar de Contratistas* (RAC). There are close to 5,000 companies registered in the RAC. Companies providing services to the private sector are not obliged to register in the RAC; however, most companies do register directly or through representatives or joint-venture partners. Many of these companies also become members of different chambers and associations.

The RAC provides a way for PDVSA to ensure that companies that wish to conduct business in the Venezuelan petroleum industry area properly qualified to provide the products and services they wish to provide.

The RAC is part of a large registry for all companies doing business with State-owned enterprises. The RNC (*Registro Nacional de Contratistas*) is kept by the Venezuelan OCEI (*Oficina Central de Estadisticas e Informatica*). Officially, the registration process could take up to three months and involves a lot of time and effort. Every year, the registration has to be updated and the price list and contracts revised.

Companies seeking registration with the RAC are classified according to one of the following categories:

- Supplier: manufacturer, exclusive representative or distributor.
- Contractor: projects and construction or services.
- Consultant: engineering and/or architectural, and other.

Suppliers must list all of their products with the corresponding OCEI codes. These codes can be obtained from PDVSA.

Contractors must provide a list of the different projects and jobs that are capable of performing, in order of those in which they have the most expertise. They must also provide backup information on their previous experience and projects along with sufficient technical information to support their claims.

Consultants must provide their technical qualifications in order of importance. They also have to provide a list of all employees that would be involved in performing projects with copies of valid passports or current Venezuelan identification stating nationality. Copies of current tax returns for those subject to Venezuelan tax must also be supplied.

The RAC registration documents must be prepared by an authorized representative of the company, a legal representative of the company, a shareholder, or a member of the board of directors. The representative must be clearly authorized in writing. The documentation needed to register includes the following:

- Notarised certified copies of the company's articles of incorporation and statutes.
- Notarised certified copies of any and all modifications to the articles of incorporation and or the statutes of the company.
- For Venezuelan companies, a copy of the Registro de Informacion Fiscal (RIF), the document that contains the company's tax information.
- In the case of exclusive representatives or distributors, a notarised and authenticated by the Venezuelan consulate in the country of origin letter of authorization from the manufacturer explaining the terms of the agreement. It should include the expiration date of the agreement with a list of products to be represented. A separate form (SIRNAC-001), should be filled out and attached.
- Companies with foreign shareholders need to provide proof of registration with the Superintendent of Investments at the Treasury Ministry (SIEX) or similar registration with the Ministry of Energy and Mines (MEM) for companies that only have activities in the petroleum industry.
- Copies of quality certification certificates from the company (ISO 9000 Information, patents, seals or licenses) must be provided.
- Copies of the Venezuelan identification, RIF, passports, and other documents must be provided for each of shareholders, Board of Directors, and legal representatives of the company.
- Detailed financial information must be presented for the previous three years. An independent public accountant must sign the financial statements and supporting documents.
- All technical information must be supported by additional documentation using the form provided by PDVSA.

PDVSA will not accept registrations that are not complete or clearly filled out.

The consolidated budget of PDVSA's businesses is submitted annually to the consideration of the Shareholders Meeting of the Corporation, of which the sole shareholder is the Venezuelan State represented by the Ministry of Energy and Mines.

PDVSA's budget has two main components: operating expenses, including administration and operational expenses; and oil business investments, including everything related to investments, projects and works to be undertaken in the company's various national and international operational areas.

The budget is valid for one year coinciding with the fiscal year of the Republic. This means that the expenses have to be made during the fiscal year in which they were included. When investment for the activities foreseen in the budget take more than one year, an application for funds has to made again for the particular project.

The provisions of the Bidding Law regulate the projects and work contracted by PDVSA, which are discussed in a separate chapter. No official entity may contract work and/or projects without meeting the provisions set forth in this Law.

Service companies wishing to do business with PDVSA have to be registered with PDVSA´s *Registro Auxiliar de Contratistas* (RAC) and comply with its requirements. Upon registration, service companies are included in the RAC's computer system. Neither PDVSA nor any of its affiliates will enter into a contract if this step is not complied.

The provisions in the Bidding Law regulate the presentation of a service proposal. After making a public call for a national or international bid, the service proposal is evaluated according to the law and PDVSA's norms. The technical and financial prequalification of the companies and the terms of reference is then made, followed by the steps set forth in the pertinent legislation.

3.3 HEAVY INDUSTRIES – GUAYANA REGION

At the end of the 60's, Venezuela appeared to have depleted the import substitution model that was the domestic policy for industrial sector growth, particularly the metal-mechanic sector. This was the main reason to redirect policy to the production of capital assets in the decade of the 70's.

Medium and heavy industries had significant growth in the first half of the 70's. In general, industrial activities grew at an average rate of 9% per year, medium and heavy industries at an average rate of 16.6% per year, and traditional industries at an average rate of 7.8%.

After 1975, this general growth rate began to slow down from 9 to 7%, whilst the metal-mechanic sector rate was maintained slightly over the prior rate (10.4%); this is explained by a governmental policy to promote the growth of the construction industry, which requires a large amount of products from the metal-mechanic industry.

The Guayana region in south-eastern Venezuela is made up by the Bolivar, Delta Amacuro and Amazonas states and covers 50% of the total area of the country. Ciudad Guayana, the seventh most important city in Venezuela and one of the main industrial centres in the country, is located in this region.

Ciudad Guayana was the area that received most benefits from the import substitution policy. At the beginning of the 70's, there were 18 industries in the area, by 1978 this number had increased to 49.

Industries can be gathered in three groups: heavy, medium and small industries. They can further be described by the following: geographical distribution, national or local importance and infrastructure value.

The heavy industries located in Ciudad Guayana-San Felix (Matanzas) have the largest number of workers and employees by company in the country, but their aggregated value is very low.

This area is considered one of the more contaminating industrial complexes within the country. After 35 years of operation, the environmental authorities are urging the *Corporacion Venezolana de Guayana, CVG,* to develop new environmental control strategies, particularly now that these industries intend to develop new modes of production or to intensify their production levels.

Because of this urgency, the CVG has developed an environmental strategy for some of its industries located in Matanzas and other areas. The pertinent environmental studies began to be developed as of the 80's.

The most important works in this area are iron ore, steel, aluminium, and other metal-mechanic industries. This location is related to nearby raw materials, the labour that settled in Puerto Ordaz and San Felix, and the development of hydroelectric plants (Guri, Macagua I and Macagua II) on the Caroni River. *CVG-Edelca* is developing two new hydroelectric projects on this river. The relationship among these three industrial location factors has been considered fundamental for the location of such an important industrial complex.

The *Corporacion Venezolana de Guayana CVG* is the regional development agency responsible for the promotion of investments and inter-institutional planning and co-ordination. The purpose of these activities is to facilitate the development and reactivation of programs and projects in the region and its area of influence north of the Orinoco River (south of Anzoategui and Monagas states).

For more information write to e-mail cvgproni@internet.ve o cvgpres@internet.ve and Schedule C.

The investments foreseen by the CVG for the 1999-2002 are:

Portfolio of Strategic Investments for the 1999 – 2002 period in the Guayana Region, Venezuela

Project	Estimated Investment US$ MM	Level of the Study	Location
Forest Sector			
Casing Factory	4,4	Pre-feasibility	Uverito, Monagas state
Scrimbers Manufacturing	38	Pre-feasibility	Uverito, Monagas state
Charcoal	25	Feasibility	Caicara, Bolivar state
Parquet Floor Factory	1	Pre-feasibility	Upata, Bolivar state
Wood Conservation and Drying Plant	30	Preliminary Design	South of Monagas state
Pre-manufactured Wood Houses	50	Preliminary Design	South of Monagas state
Pre-manufactured Wood Houses	30	Preliminary Design	Tumeremo, Bolivar state
Timber Flour	4,5	Pre-feasibility	Chaguaramas, Monagas state
Timber - Cement Boards	6,8	Pre-feasibility	Chaguaramas, Monagas state
Rubber Trees, Palms and Amazonian Fruit Trees Plantations	46	Pilot Project	San Fernando de Atabapo, Amazonas state
Pulp and Paper Plant	300	Pre-investment	Soledad, Anzoategui state
Wood Doors and Windows	10	Pre-feasibility	Upata, Bolivar state
Aluminium Sector			
Aluminium-Cement Plant	8	Pre-feasibility	Ciudad Guayana, Bolivar state
Aluminium Powder and Paste	8	Feasibility	Ciudad Guayana, Bolivar state
Bauxite Upgrading Plant	17	Pre-feasibility	Los Pijiguaos, Bolivar state
Screw and Rivet Plant	32	Pre-feasibility	Ciudad Guayana, Bolivar state
Aluminium Pole and Mast Plant	31	Pre-feasibility	Ciudad Guayana, Bolivar state
Aluminium Motor Block Plant	45	Pre-feasibility	Ciudad Guayana, Bolivar state
Aluminium Structural Profile Plant	55	Pre-feasibility	Ciudad Guayana, Bolivar state
Aluminium Radiator Plant	122	Pre-feasibility	Ciudad Guayana, Bolivar state
CVG - Alcasa Aluminium	800	Feasibility	Ciudad Guayana, Bolivar state

Reduction Line V			
Iron and Steel Sector			
Pellet Plant	350	Feasibility	Ciudad Guayana, Bolivar state
Large Plates Steel Works	1.172	Feasibility	Ciudad Guayana, Bolivar state
Reopening of the Altamira Deposit	74,6	Feasibility	Ciudad Piar, Bolivar state
Low-grade Iron Concentration Plant	211	Bid	Ciudad Piar, Bolivar state
Infrastructure Sector			
Railway System and Multipurpose Port	600	Draft	Bolivar, Anzoategui, Monagas and Sucre states
Mixed Bridge over the Orinoco River	450	Draft	Bolivar, Anzoategui and Monagas states
Peripheral Projects of the Iron Concentration Plant	19,7	Feasibility	Ciudad Piar, Bolivar state
Mining Sector			
El Toco – Guaniamo Quarries	10,6	Feasibility	Cedeño municipality, Bolivar state
Bauxite El Palmar	347	Initiation of Exploration	Padre Chien municipality, Bolivar state
El Foco	347	Exploration	Sifontes municipality, Bolivar state
Lot B Mining Promotion	600	Promotion	El Callao municipality, Bolivar state
Tourism Sector			
Macagua Special Development Plan	-	Development Plan	Bolivar state
Caronica Residential Tourist Complex	-	Project	Caroni municipality, Bolivar state
Faro de Parguasa Tourist Complex	0,4	Project	Caroni municipality, Bolivar state
El Frio Ecotourist Camp	0,6	Project	Piar municipality, Bolivar state
Forum Hotel for Conventions	19	Project	Caroni municipality, Bolivar state
Agricultural and Agro-industrial Sector			
Buffalo Breeding	1,2	Pilot Project	Isla de Guara, Monagas state

Source: CVG. *Guayana lo tiene todo* (Guayana has all). Investment Portfolio 1999 - 2000

3.4 URBAN INDUSTRIES - CENTRAL REGION

The Miranda, Carabobo, Aragua states and the Capital District concentrate a large number of industrial establishments, distributed in three important nuclei: the capital city (Caracas), the industrial belt Tejerias – Maracay – Valencia - Puerto Cabello, and the Tuy Region. Shoes, textiles, clothing, food processing, electric home instruments and printing industries are common in the first region, although here remind some heavy industries related the construction activities, like cement and iron and steel industries.

The Tejerias – Maracay – Valencia - Puerto Cabello belt has a large diversity of industries, from steel and iron to paper and painting. This area was developed under these activities thanks to the *national deconcentration of the capital city industrial policy*, starting during the 1970's, when a large number of establishments moved from Caracas to this area. In the Puerto Cabello sector are located petrochemical and refinery large industries.

The Tuy Region concentrates a large number of machinery, machine tools, and food processing and packing industries.

70% of the industrial production is generated in these tree sectors. And 76% of the industrial employment is in these areas. During the last 20 years, the number of establishments for the chemicals, electric instruments and plastic industries have been growing in the area, employing more 30.000 peoples.

3.5 THE MINING ACTIVITY

Venezuela has important mineral resources that include: iron ore, aluminium, nickel, coal, gold, diamonds, copper, zinc, limestone, clay, sands, ornamental rocks, etc., the full potential of which has not been yet developed or used.

According to MEM figures, potential reserves of the first six minerals listed had a referential value close to US dollars two billion (US$2 billion) in 1998, as shown in the following table:

Venezuelan Mineral Resources (1998)

Mineral	Potential Reserves	Unit	Referential Value US$ MM
Iron ore	10,250	MM t	300,000
Aluminium	5,000	MM t	517,800
Nickel	55	MM t	363,600
Coal	8,263	MM t	250,000
Diamonds	99	MM Q	13,500
Gold	10,000	t	90,000

Source: MEM

Even though Venezuela has high potential in mineral resources, mining activities are incipient and disorganized. They are characterized by:

- Low economic and social benefits for the country, the communities and miners.
- Low contribution to the GDP (less than 1 %).
- Foreign exchange flight due to smuggling.
- Loss of fiscal income by the State due to poor fiscal practices.
- Lack of leadership by the ruling agency.
- Lack of an entity for the generation of basic geology.
- Lack of a reliable inventory on the potential of the country's mineral resources.
- Lack of a National Mining Plan.
- Widespread inappropriate mining practices.

On the other hand, results from the adjustments made since 1997 to face the Asiatic and Russian crises, leave other countries in a better position.

- **Aluminium:** 1.7 million metric tons were produced in 1998, which represents 85% of the two million ton installed capacity. There is a project to increase the installed capacity to three million tons.
- **Bauxite:** its production increased during the decade of the 90's, but it declined in 1999 by more than 20% with 4.1 MM MT; production in 1998 was 5.1 MM MT.

- **Limestone:** It is one of the industrial minerals more widespread and exploited in Venezuela. Its production has had considerable ups and downs, mainly due to consumption decline in the construction industry, which is one of its largest users, even though limestone is the main raw material for cement. Production was close to 18 MM MT in 1999.
- **Coal**: Coal production in the 1988–1994 period passed from 1,072 million to 4,434 million MT. Recently, even though there is a difficult situation in Venezuela, production growth has been maintained, reaching 6,500 million MT in 1999. The main projects are located in Zulia, Tachira and Falcon states, but they have a tendency towards stagnation maintaining only linear production or even artisan production in some cases. There are plans to initiate a stage of volumetric growth as a way to cover high costs and improve competitiveness.
- **Cement:** In 1999 production was close to 11.5 million MT, mainly aimed at foreign markets. Venezuela has been the fifth cement exporting country to the United States for the past four years, even though a decrease of 11% was experienced in 1998 when Venezuela only exported to U.S.A. 1.78 million MT. In 1997 exports reached two million MT.
- **Iron ore:** The increase of domestic consumption made necessary the decrease of raw mineral exports, transforming iron ore in Venezuela and/or giving it a downstream positive added value. However, exports have continued to be over 50% of domestic production. In 1998, around 7 million MT were exported of a production of 19 million MT. In 1999, production declined to approximately 13 million MT.
- **Silica:** Production has doubled in the past ten years due to demand growth by the domestic manufacturing industry, basically to make glass, containers and pottery, reaching 1 million MT in 1999.
- **Gold:** This is the most controversial mineral. Reported figures for gold production are contradictory, if official figures from MEM and those published by Goldfields Minerals Services (GMS) or other estimates are considered. The differences are shown next:

Year	Production (MT)	
	MEM (Official Figures)	GMS (Estimates)
1988	3.5	20
1992	8.5	11.7
1994	10	13.7
1997	22.3	W.I.
1998	7.2	W.I.
1999	W.I.	15

W.I.: without information
Source: Goldfields Mineral Services

The El Callao mining district is located on the green rock belt, well known for its potential. Opportunities for concessions are via CVG. Proven reserves of gold reach 22,780 kg (732,000 ounces) and hypothetical resources are 700,000 kg (22.6 million ounces).

Statistical information on the mining sector is included in the following pages.

IRON PARTICIPATION IN THE GNP

Years		% GNP Iron/ GNP Total Iron
1988		0,16
1989		0.25
1990		0.31
1991		0.35
1992		0.23
1993		0.17
1994		0.10
1995		0.10
1996		0.10
1997		0.18
1998		0.15
Average participation	**1988 - 1998**	**0.19**
	1993 - 1998	**0.13**

Source: Ministry of Energy and Mines. Mining Statistics Yearly Report, 1998. Caracas, October 1999

MINERAL EXPORTS (1988-1998) (THOUSANDS OF METRIC TONS)

Years	Iron	Oil and oil products	Aluminium	Others
1988	12,289	84,966	377	6,327
1989	14,435	85,033	487	6,762
1990	13,620	98,451	389	8,486
1991	13,385	109,036	546	10,047
1992	10,002	107,207	409	8,314
1993	10,646	110,405	421	34,718
1994	10,711	122,011	439	15,097
1995	10,611	132,794	431	14,125
1996	9,529	144,446	1,062	13,661
1997	9,321	159,787	493	16,448
1998	8,603	163,062	475	17,831

Source: Ministry of Energy and Mines. Mining Statistics Yearly Report,1998. Caracas, October 1999

IRON AND STEEL PRODUCTS PRODUCTION (METRIC TONS)

Product	1993	1994	1995	1996	1997	1998
Raw material	2,565,817	11,915,343	10,430,386	11,076,368	13,035,799	W.I.
Semi-manufactured	771,689	914,917	863,277	1,222,398	2,976,001	208,456
Manufactured	2,451,014	2,114,484	2,082,440	2,368,166	2,585,995	2,162,892
Total	**5,788,520**	**14,944,744**	**13,376,103**	**14,666,932**	**18,597,795**	**2,371,348**

W.I: Without Information

Source: Ministry of Energy and Mines. Mining Statistics Yearly Report,1998. Caracas, October 1999

BAUXITE, ALUMINA AND ALUMINIUM PRODUCTION (METRIC TONS)

Years	Bauxite	Alumina	Aluminium
1993	W.I.	1,500,000	1,132,375
1994	W.I.	1,551,000	1,212,350
1995	W.I.	1,661,000	1,291,289
1996	4,834,052	1,701,000	1,298,549
1997	4,966,792	1,730,000	1,277,856
1998	4,825,647	1,900,000	1,195,073

W.I: Without Information

Source: Ministry of Energy and Mines. Mining Statistics Yearly Report,1998. Caracas, October 1999

GOLD AND DIAMOND PRODUCTION. VALID CONCESSIONS

Years	Production		Concessions (1998)	
	Gold (grams)	Diamond (metric carat)	Type	Ha
1988	3,502,273	128,405	Vein Gold	38,168
1989	5,112,897	213,264	Alluvial Gold	10,266
1990	6,333,777	336,976	Alluvial Gold and Diamonds	100,521
1991	6,733,078	337,022	Vein Gold and Diamonds	14,000
1992	8,547,446	486,935	Gold, Diamond and Rock Crystal	3,500
1993	8,984,709	410,750	Gold and Silver	4,500
1994	10,093,537	582,522	Gold and Tungsten	1,000
1995	7,259,211	296,116	Diamonds, Zinc, Chrome and Granate	390
1996	11,718,664	172,016	**Total**	**172,345**
1997	22,322,210	284,208		
1998	6,808,564	96,811		

Source: Ministry of Energy and Mines. Mining Statistics Yearly Report,1998. Caracas, October 1999

CARBONIFEROUS RESOURCES AND VALID CONCESSIONS FOR 1998

State	Total reserves Million of metric tons	Valid concessions (Ha)
Zulia	6,791	16,809
Tachira	1,071	4,378
Anzoategui	166	7,334
Falcon	154	6,375
Merida	9	0
Guarico	50	0
Aragua	30	0
Total	**8,271**	**34,896**

Source: Ministry of Energy and Mines. Mining Statistics Yearly Report,1998. Caracas, October 1999

COAL PRODUCTION IN METRIC TONS

Year	Production
1988	1,072,204
1989	2,113,296
1990	2,145,648
1991	2,403,405
1992	2,479,897
1993	3,958,192
1994	4,435,969
1995	4,346,131
1996	4,180,641
1997	5,291,908
1998	6,324,128

Source: Ministry of Energy and Mines. Mining Statistics Yearly Report, 1998. Caracas, October 1999

NON-METALLIC MINERAL PRODUCTION 1993 - 1998

Year	Production
1993	22,817
1994	20,905
1995	23,601
1996	26,261
1997	24,061
1998	22,721

Source: Ministry of Energy and Mines. Mining Statistics Yearly Report,1998. Caracas, October 1999

3.6 FOREIGN DIRECT INVESTMENT IN HYDROCARBONS, PETROCHEMICAL & MINING. 1989-1998

FOREIGN DIRECT INVESTMENT IN HYDROCARBONS, PETROCHEMICAL & MINING. 1989-1998

Year	Sector			Total (US$ MM)
	Hydrocarbons	Petrochemical	Mining	
1989	0.82	3.8	17.33	**21.95**
1990	2.86	0.47	0.51	**3.84**
1991	17.75	299.29	4.3	**321.34**
1992	12.69	40.68	2.01	**55.38**
1993	9.49	120.97	4.55	**135.01**
1994	34.91	27.72	3.17	**65.8**
1995	41.94	11.24	5.12	**58.3**
1996	56.06	6.12	0.21	**62.39**
1997	139.08	20.1	0	**159.18**
1998	31.06	4.22	0	**35.28**
Total	**346.66**	**534.61**	**37.2**	**918.47**

Source: Ministry of Energy and Mines. Annual Report 1998. Caracas, January 1999

FOREIGN DIRECT INVESTMENT PER ACTIVITY IN THE HYDROCARBON, PETROCHEMICAL AND MINING SECTORS. 1989-1998 (US$ MM)

Activity	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Well Drilling and Services	0.22	0.51	15.05	0.94	6.26	14.04	7.06	37.56	114.09	17.45
Supply and rental of equipment, materials and services	0.01	0.14	0.80	7.59	0.77	17.01	3.33	2.81	8.23	10.54
Suppliers of mud, chemical products and related services	0	0	0	0	0.02	0	1.76	1.50	10.08	1.98
Capital goods and consumption products	0.56	2.03	1.30	2.53	1.80	3.08	6.51	8.05	1.47	0.25
Technical services for the gathering and processing of geophysical information	0	0.16	0.59	0.97	0.42	0	0.02	3.98	2.17	0.39
Distribution and sale of hydrocarbon derivatives	0	0	0	0.48	0.01	0	9.00	0	0	0
Consulting, design and process engineering services	0.02	0	0	0.11	0.01	0.38	0.19	0.05	0.22	0.11
Hiring of services for technical assistance	0.01	0.02	0.01	0.07	0.20	0.50	3.60	2.10	2.68	0.34
Elaboration of petrochemical products	3.80	0.47	299.29	40.68	120.97	27.72	11.24	6.12	20.14	4.22
Coal and mining industries	17.33	0.51	4.30	2.01	4.55	3.17	5.12	0.21	0.83	0

Source: Ministry of Energy and Mines. Annual Report,1998. Caracas, January 1999

3.7 THE ELECTRICAL SECTOR

The next table illustrates consolidated totals of the energy generated by the sector and the installed capacity for the years 1997-1998. Electric power generation grew 4.09% with regard to 1998, whilst the installed capacity grew 2.52% for the same period.

VENEZUELAN CONSOLIDATED ELECTRIC SECTOR – GENERAL INFORMATION

Activities	1997	1998	Variation (%)
Total Electric Power, GWh	57,923	79,438	4.09
Total Installed Capacity, MW	-	20,633	2.52

This table illustrates the consolidated historical capacity of the electric power generation sector from 1990 until 1998.

BASIC INFORMATION ON THE CONSOLIDATED ELECTRIC SECTOR

Years	1990	1991	1992	1993	1994	1995	1996	1997	1998
Capacity (MW)	17,973	17,976	18,012	17,859	18,052	18,161	19,863	20,581	20,633
Consumption (GVh)	44,709	47,587	49,811	51,552	52,342	54,399	56,306	58,814	59,570

This table highlights private sector company statistics (1998) for installed capacity, service demand and electric power generation. The size of each company can also be appreciated.

PRIVATE SECTOR STATISTICS, 1998

	Elecar	Calev	Eleggua	Caley	Eleval	Elebol	Calife	Seneca
Installed Capacity (MW)	2,325	-	4	6	218	-	-	117
Maximum Demand (MW)	1,887	493	133	41	233	121	60	200
Total Generation (GWh)	8,624	-	5	-	981	-	-	125
Total Clients	650,000	312,000	78,790	53,899	103,863	41,943	39,238	89,377

As in the previous table, private sector company statistics are illustrated, for the year 1997. We can thus evaluate the sector's growth in this period.

PRIVATE SECTOR STATISTICS, 1997

	Elecar	Calev	Eleggua	Caley	Eleval	Elebol	Calife
Installed Capacity (MW)	2,407	-	4	6	218	-	-
Maximum Demand (MW)	1,817	463	124	41	233	114	70
Total Generation (GWh)	7,965	-	-	-	930	-	-
Clients	633,864	307,311	73,975	51,128	96,343	41,116	39,377

The next two tables illustrate the variations in public sector companies during the 1997-1998 period regarding installed capacity, demand, total generation and total clients.

PUBLIC SECTOR STATISTICS, 1998

	Enelven	Enelco	Enelbar	Cadafe	Edelca
Installed Capacity (MW)	1,175	41	151	4,091	12,505
Maximum Demand (MW	1,178	625	384	4,292	8,386
Total Generation (GMh)	4,379	260	485	8,383	56,196
Clients	379,112	109,737	293,166	2,069,717	223

PUBLIC SECTOR STATISTICS, 1997

	Enelven	Enelco	Enelbar	Cadafe	Edelca
Installed Capacity (M	1,175	41	151	4,272	12,307
Maximum Demand (MW)	1,134	553	300	3,941	8,178
Total Generation (GWh)	4,376	201	400	7,472	54,962
Clients	358,365	101,157	290,230	2,081,570	179

Finally, consolidated investments in the sector for the 1993-97 period were much smaller in real terms with regard to the previous five years. During the past 10 years, public investment in the sector did not surpass 0.2% of the GDP, the desirable figure for public services being 1%. In Venezuela, in the past, this figure reached an average of 1.6% of the GDP, widely surpassing international standards.

3.8 THE WATER SECTOR

3.8.1 Investment opportunities

In 1998, the *Consejo Nacional de Promocion de Inversiones (CONAPRI* – The National Council for the Promotion of Investments*)*, established that opportunities in Venezuela for private sector participation in the drinking water and sanitation sector were numerous and very attractive, as a consequence of reversion to the regions of these services and a policy of promotion and attraction of private companies to participate in the different stages necessary for the supply of service. The private sector may participate in the two main stages characteristic of the water sector: the exploitation of water resources and the subsequent phases to provide water supply service to end users.

To exploit water resources it is necessary to obtain a concession from MARN. Concessions are granted for 60 years according to Presidential Decree 1400 of August 12, 1996.

Drinking water and sanitation services may be provided by investors in mixed companies made up by private companies and the State, as established in the *Ley Organica de Descentralizacion, Delimitacion y Transferencia de Competencias del Poder Publico (*Organic Law of Decentralization, Delimitation and Transfer of the Public Power Competencies*)* approved in December 1989, or through any of the contractual ways provided in the *Ley Organica de Regimen Municipal (*The Organic Law of Municipal Regime).

Participation modalities are:

1) Service Contract: Allows competition among many suppliers, each of them with brief specific contracts. Example: meter reading, invoicing and collection, operation and facility maintenance.

2) Management Contract: The responsibility for managing an operation is transferred and management autonomy increased.

3) Lease agreement: The supplier assumes the whole operating risk. Example: Broad operating contract.

4) Concession: The concessionaire assumes the operational and investment risks. Example: All the aspects of a lease contract plus the financing of some fixed assets. The concessionaire assumes total service operation.

3.8.2 Decentralization System

Since 1990 when sector restructuring was initiated, the main purpose of the reform focused on the need to supply better drinking water and sanitation services to the community through optimization of such services' management efficiency. The return of services to the municipalities was designed as the core strategy, since municipalities are the entities that should have control over them and also are appropriately near to solutions at the scope where problems arise.

Service decentralization is a fundamental strategy for modernization of the sector. The objectives are:

- Increase the efficiency of regional companies.
- Incorporate new and better technology
- Guarantee the company's financial autonomy.

So far, two companies have been incorporated in the regions. They are autonomous with regard to operations and responsible for integral service supply. They are:

- *Aguas de Monagas* (1994). Located in Monagas state (East Venezuela) this company signed an integral management contract with the private sector for water extraction, gathering, treatment, storage and distribution, and for sewage disposal.

- *Hidrolara* (1995). Located in Lara state (Middle Venezuela), Hidrolara is also a public company held by the municipalities and state government. This company is currently contracting services with the private sector.

12 states are currently expediting deals and agreements with the Government to decentralise water services for their respective regions.

3.8.3 Environmental Considerations

Basin protection is one of the technical and institutional actions most urgently needed by the water supply system. Constant intervention of river sources and in the protective areas supplying the main water supply systems has resulted in substantial reduction of the available flows and considerably affected water quality.

Average available flows have been progressively reduced due to basin intervention, and this has affected the volume of extraction during the dry season. The consequences translate into the need to make greater investments for new works providing guaranteed and secure water supply.

3.8.4 Current Structure of the National Water System

COMPANY	ACTIVITIES	LOCATION
C.A. Hidrologica de Venezuela HIDROVEN	NATIONAL HOLDING	CARACAS

REGIONAL COMPANIES		ACTIVITIES
COMPANY	LOCATION / STATE	DRINKING WATER ADMINISTRATION OPERATION DISTRIBUTION COMMERCIALIZATION SEWAGE COLLECTION TREATMENT SEWAGE DISPOSAL
HIDROANDES	MERIDA	
HIDROCAPITAL	METROPOLITAN AREA	
HIDROCENTRO	ARAGUA	
HIDROCARIBE	NUEVA ESPARTA	
HIDROCCIDENTAL	GUARICO	
PORTUGUESA	PORTUGUESA	
HIDRFALCON	FALCON	
HIDROLAGO	ZULIA	
HIDROLARA	LARA	
HIDROLLANOS	BARINAS	
HIDROPAEZ	APURE	
HIDROSUROESTE	TACHIRA	
AGUAS DE MONAGAS	MONAGAS	

3.8.5 Regional Projects - External Loans 1997-2000

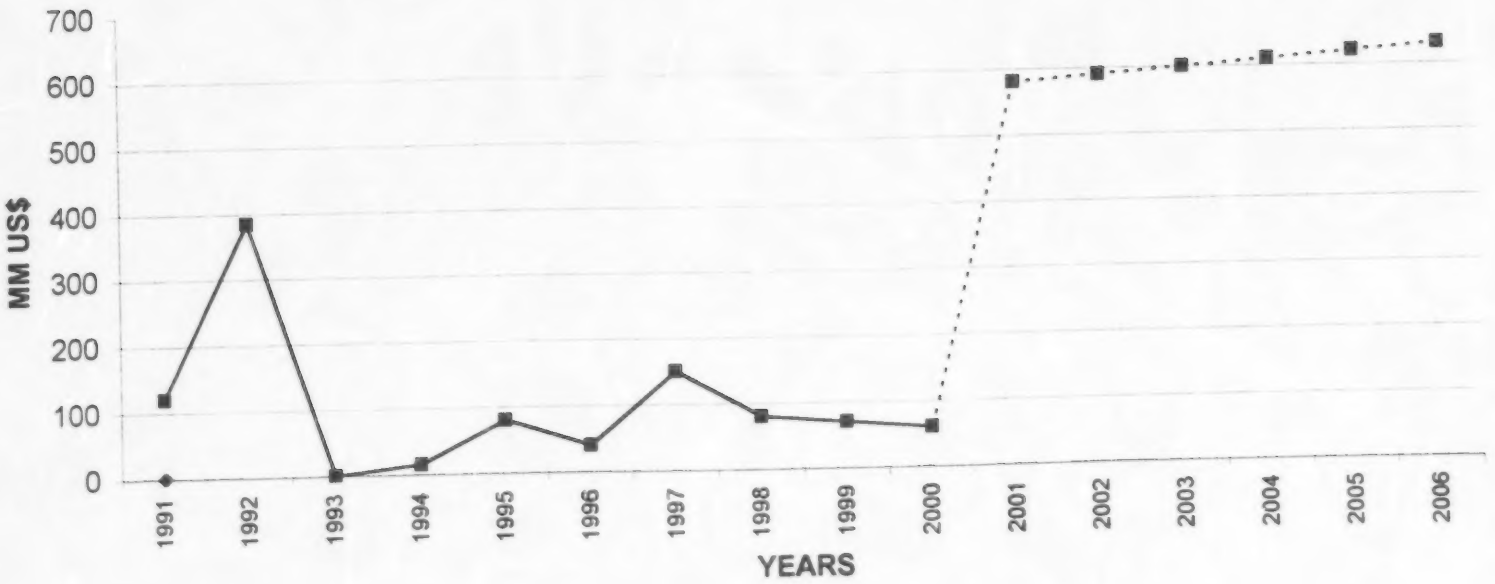
Regional Projects - External Loans 1997-2000 (1/2)

Project Name	Moneylender Institution	Loan US$	Implementing Agency	Starting Date	Status 12-31-99			Status
					Financial		Physical	
					US$	%	%	
1. Rehabilitation of the Water Supply System, Monagas State	World Bank	39.0	Aguas de Monagas / Hidroven	Jan 1997	15.20	39	45	In progress
2. Rehabilitation of the Water Supply System, Lara State	DIB	30.0	Hidrolara /Hidroven	June 1998	4.40	15	15	In progress
3. Aqueduct Control System Central States	Bank Leumi / Tahal	28.00	Hidrocentro	Jan 1999	8.00	29	30	In progress
4. Rehabilitation & Improvement of the Water Supply System, Barinas, Merida & Trujillo States	Bank Leumi / Tahal ADC	11.0 25.0	Aguas de Merida Hidroandes	Nov 1998 Feb 2000	3.85 0.00	35 0	38 0	In progress About to start
5. Rehabilitation of the Water Supply System, Zulia State	Orthem Trust/Harz	20	Hidrolago	April 2000	0.00	0	0	Contract signed in December
6. Optimisation Plan for the Operating and Commercial System of Porlamar Aqueduct (Nueva Esparta State Capital)	Bank Leumi / Tahal	3.0	Hidrocaribe	March 2000	0.00	0	0	About to start Contract signed in December 99

Regional Projects - External Loans 1997-2000 (2/2)

Project Name	Moneylender Institution	Loan (US$)	Executor	Starting Date	Execution 12-31-99			Status
					Financial		Physical	
					US$	%	%	
7. Caracas Aqueduct System, Metropolitan Area								
7.1 Tuy Line II, Metropolitan Aqueduct	ADC	25.0	Hidrocapital	September 1997	24.60	98	98	In progress
7.2 Control & Supervision System, Caracas Water Supply.	Bank Leumi / Hydrocom	8.20	Hidrocapital	February 1999	3.60	44	45	In progress
7.3 Rehabilitation of Caracas Metropolitan Aqueduct	ADC	50.0	Hidrocapital	August 1999	10.85	22	20	In progress
7.4 Water system Maintenance & Rehabilitation, Caracas Metropolitan Area	Bank of America NT / Harza	30.0	MARN / Hidrocapital	May 2000	0.00	0	0	Final steps for loan granting Contract signed in December 99
8. Emergency Water Program for Vargas and Miranda States.	Bank Leumi / Tahal	3.00	Hidrocapital	March 2000	0.00	0	0	About to start

3.8.6 INVESTMENTS DRINKING WATER SANITATION 1991-2006



FUENTE: HIDROVEN

3.9 OTHERS PRIVATE SECTOR

Venezuelan corporations have established their stance with regard to the role they should play in the country's economy. They can and should play a fundamental role in the growing process. To do so, the Venezuelan Government should establish an economic and social development plan based on the strengthening and consolidation of the national production sector as a driving force for the national economy, instead of the traditional official approach intended to generate growth and development through wrong policies such as an unproductive increase of public expenditure. They consider that only in this manner will a milieu propitious to private investment and trust be created.

By law, all companies in Venezuela have to submit environmental compliance plans. When companies report that they are out of compliance, these plants must include a schedule of investments to bring them into compliance with environmental standards. The amount of time given to an industry to bring itself into compliance varies. Because of the difficult economic situation in recent years, most companies are behind in implementation of these plans and have made request to the MARN for extensions.

Environmental enforcement in Venezuela has been weak over the last ten years, in large part due a lack of financial resources to support a nation-wide inspection system. The MARN has only a small enforcement body, so as a practical matter it tends to inspect only the larger companies. Environmental inspection visits are infrequent in the most cases, these companies are found to be up to date with environmental upgrade plans submitted to the ministry.

The National Environmental Management Project, supported by the World Bank has a special initiative for surveillance and enforcement. This initiative will focus on both legislation and regulations, as well as a private sector self-reporting system.

With the gradual recovery of the economy, larger Venezuelan companies and subsidiaries of multinationals are investigating ways to reduce air emissions, wastewater discharges, and other wastes created by the production process.

The ISO (International Standards Organization) 14000 series establishes a common framework for industry for the prevention of environmental pollution around the world. In 1993, Venezuela´s standards entity (COVENIN), established a technical committee to work towards compliance with ISO standards. The federal government is studying plans to provide incentives for the adoption of ISO 14000 standards. One idea is provide low-cost loans to companies that receive certification and could emerge as an additional market driver.

4. STEPS TO DOING BUSINESS IN VENEZUELA

This chapter includes a synthesis of the legal framework applied to business activities in Venezuela in general, the conditions of the Bidding Law (*Ley de Licitaciones*), registration with MARN, the companies supplying environmental services and the most outstanding business opportunities.

A summary of the conditions applied to the activities of foreign capital companies in Venezuela and the legal requirements to be fulfilled for their sound operation are provided next.

4.1 LEGAL FRAMEWORK

Every foreign investment in Venezuela should be registered. This does not imply that an authorization is required to invest in Venezuela, since registration is a requirement subsequent to investment entry in the country.

The ruling principles for foreign investment in Venezuela can be summarized as follows:

National Treatment: It guarantees that national and foreign investors receive the same treatment from Public Authorities.

Universality: Foreign investment is permitted in all economy sectors, except in TV, radio and newspapers in Spanish, and professional services regulated by national laws (lawyers, bachelors in Administration, accountants, economists, engineers, physicians, dentists, journalists and psychologists). In these economy sectors, the national investor should hold 80% of the capital stock and foreign investors may invest and hold the remaining percentage. Additionally, foreign investments in hydrocarbon, iron, banking and insurance activities will be governed by the pertinent special laws.

Non-authorization: No authorization is required by the administrative entity to make foreign investments in Venezuela, except for the provisions in the Organic Law of Security and Defence (*Ley Orgánica de Seguridad y Defensa*) establishing that foreigners should apply for authorization at the Ministry of Defence to own real estate in the Border Security zone, in zones around basic industries and military facilities and in the land adjacent to the seacoast, lakes and navigable rivers.

Freedom for dividend and capital remittance: Investors are authorized to send abroad the proceeds from the sale of their shares, interests or rights, as well as the sums resulting from capital reduction or liquidation of the company. Foreign investors may repatriate their profits at the close of the fiscal period.

Freedom of access to national and international credit: There is no restriction for access to credit.

Benefit of the Liberalization Program: Foreign companies may participate in the Andean Community Liberalization program and, accordingly, they may export within the subregion with the same terms as national companies.

4.1.1 Foreign Investment

According to the information prepared by Conapri[27], foreign investment can be made in different modalities:

Direct foreign investment: Made up by contributions from sources abroad, whether individuals or corporate bodies, in freely convertible currency, physical or tangible assets (industrial plant, machinery, spares, parts), national currency from resources entitled to be sent abroad, reinvestments or investments from conversion of debt into investment[28] (according to which, the potential investor may acquire external public debt bonds and request their total or partial conversion for projects in: construction, maintenance and administration of highways, ports, bridges, railways; investments in aqueducts, irrigation and environmental sanitation systems; land transportation of passengers and fluvial transportation; construction of agricultural road networks and road maintenance; among others) and intangible technological contributions such as brands, industrial models, technical assistance and know-how, whether proprietary or not.

National investment: Made by the Government. Individuals or corporate bodies considered as nationals and foreign individuals with an uninterrupted resident visa for not less than one year (the Superintendence of Foreign Investments SIEX *Superintendencia de Inversiones Extranjeras*) may exempt them from this requirement by exception), who comply with the other laws of the Republic and who, having or not imported capitals, state before the SIEX their renunciation of the right to re-export them and send profits abroad, and who obtain from the SIEX a National Investor Credential (*Credencial de Inversionista Nacional*).

Subregional investment: That made by the national investor in any other member country of the Cartagena Agreement (Bolivia, Colombia, Ecuador, Peru and Venezuela).

Indirect investment: That made through the acquisition of shares by foreign investors in the stock exchange market.

The entity with jurisdictional authority to apply the norms on foreign investments is the Superintendence of Foreign Investments (SIEX - *Superintendencia de Inversiones Extranjeras*).

---

[27] National Council for the Promotion of Investments. Legal Regime for Foreign Investment in Venezuela. Caracas, 1998

[28] Regulated by Decree No. 99 of March 1994

There are also some sectors in which other entities have jurisdictional authority to apply these norms. These entities are:

- The Superintendence of Banks (*Superintendencia de Bancos*) and the Superintendence of Insurance (*Superintendencia de Seguros*) with regard to foreign investments made in banks or insurance companies, respectively.

- The Ministry of Energy and Mines for investments made in the hydrocarbon, petrochemical, coal and mining sectors, as well as in connected sectors such as: Technological or technical support services for hydrocarbon exploration, reservoir exploitation, extraction, manufacturing or refining, transportation through special ways, storage and commercialization.

- The Ministry of Finance regarding the registration of public credit operations implying external credit dealings by Autonomous Institutes and by Government Corporations, Associations or Foundations.

All investment should be registered. After making a direct foreign investment, the investor should register it with the SIEX within 60 days counted as of filing of the investment at the Mercantile Register Office.

The application for a direct foreign investment registration should be made by letter and enclose the following documents:

- ✓ Proof of entry of the foreign exchange or the physical or tangible assets contributed as payment for the subscribed capital stock.
- ✓ Certified copy of the Memorandum of Association and By-laws of the company receiving the investment or publication of the same.
- ✓ In the event of a corporate body, Memorandum of Association of the foreign investor translated into Spanish and authenticated by the Venezuelan Consulate in the country or origin.
- ✓ Power of attorney of the investor's representative in Venezuela
- ✓ Application for company classification.

This registration should be annually updated. To do so, foreign investors and investment receiving companies should submit the following documents within 120 continuous days after the closing date of their fiscal period:

- ✓ Application for registration updating.
- ✓ Company classification in force.
- ✓ Financial statements of the latest fiscal period audited by an independent public accountant.
- ✓ The latest income tax returns.

- ✓ Minutes of shareholders meetings in which capital increases, reductions or stay-in business are agreed, or in which dividends are declared, as well as retention vouchers of the pertinent taxes.

4.1.2 Company Classification

The legally qualified administrative entity is responsible for deciding on company classification (national, mixed o foreign), and issuing the Proof of Company Classification (*Constancia de Calificación de Empresa*).

The elements to be considered to grant the Proof of Company Classification are:

- ✓ The proportion of national and foreign capital.
- ✓ The influence of the capital in the technical, commercial, administrative and financial management of the company, being understood that the shares, interests or rights of foreign investors which do not give the right to participate in the technical, commercial, administrative and financial management of the company will not be considered for the purposes of company classification.

Moreover, the legislation in force empowers national investors to appoint foreign individuals as directors, managers and other positions in the company's administration, providing that their appointment and removal corresponds to national investors according to the Memorandum of Association and By-laws. The nationality of the appointed employees alone does not justify a change in company classification.

4.1.3 Business Structures

In Venezuela, there are several modalities of mercantile and civil societies regulated by agreements between the parties, the provisions of the Code of Commerce (*Código de Comercio*) and the provisions of the Civil Code (*Código Civil*). The various existing modalities are detailed next:

✓ **CORPORATIONS**

Their object is one or more commercial transactions. They are regulated by Section 201 of the Code of Commerce and classified as sociedades en nombre colectivo (S.N.C. – general partnership), *sociedades en comandita* (S.C. - limited/silent partnership), *sociedades anónimas* (S.A. - stock companies) and *sociedades de responsabilidad limitada* (S.R.L. - limited liability company).

A characteristic common to all the mentioned corporations is that they have legal existence immediately after incorporation, before fulfilling registration formalities. A summary of their main characteristics is given next:

Denomination	Capital	Contributions	Administration	Decisions	Control
S.N.C.	Without limitation	Indifferently	All shareholders	Shareholders Meeting or Referendum	
S.C.	Without limitation	Indifferently	Active members	Assembly o Referendum	
S.A.	Without limitation	Assets or money	Shareholders or outsiders	Assembly	Statutory Auditor
S.R.L.	US$30-30,000	Assets, money or shares	Shareholders or outsiders	Shareholders Meeting or any other means	Statutory Auditor as of US$7,500

✓ **UNINCORPORATED ASSOCIATIONS**

Without legal existence. They are associations in which a dealer or a corporation gives to one or more persons a share in the profits or loses of one or more operations or in all operations of its businesses. They are exempt from the formalities set forth in the Code of Commerce for corporations.

✓ **CONSORTIA**

Ways of association of two or more corporations gathering to work together under a same conduct and common rules, each preserving its legal existence and independence. Consortia are neither defined in the Code of Commerce nor in the Civil Code, but they have been accepted in practice. They even appear in the Income Tax Law (*Ley de Impuesto Sobre la Renta*) as subject to this tax. In the income tax law, consortia are defined as "groups of companies made up by corporate bodies, the object of which is to undertake jointly a specific economic activity."

✓ **CIVIL SOCIETIES**

Contrary to corporation, civil societies acquire legal existence and exist with regard to third parties, immediately after protocolisation of the respective contract at the Auxiliary Office of the Public Registry (*Oficina Subalterna de Registro Público*) of their domicile.

4.2 LEGAL PROTECTION FOR INVESTMENTS

Venezuela has signed several treaties to protect and foster foreign investment. Likewise, Venezuela is eligible to grant credits and insurance by state insurance companies from the investor's country of origin.

The Multilateral Investment Guarantee Agency (MIGA) of the World Bank was created to foster foreign investment in developing countries and has been in force in Venezuela since 1994.

The purpose of MIGA is to transfer to the insurance agency, through payment of a premium, the risks that may exist with regard to some international investments and that by reason of their political nature are difficult to quantify.

MIGA offers long term insurance against non-commercial risks to investors fulfilling admittance requirements. MIGA's objective is to stimulate capital and technology investments in developing countries.

Any individual or corporate body, acting in commercial terms, may obtain the guarantees given by MIGA once the economic feasibility of the investment and its legality and suitability to the development purposes of the receiving country have been evidenced.

The coverage offered by MIGA is:

- ✓ Currency convertibility.
- ✓ Expropriation and similar proceedings.
- ✓ War and civil unrest.
- ✓ Breach of contract.

The duration of this guarantee is 15 years and may be extended up to 20 years if MIGA considers that the project justifies it.

On the other hand, the Overseas Private Investment Corporation (OPIC) is an autonomous agency of the United States Government which purpose is the supply of services to US companies investing abroad. OPIC offers investment finance through direct loans and loan collateral; insurance against political risks and also provides advising and information to its members.

The purpose of OPIC is to foster socio-economic growth in development countries by stimulating US private investments in new companies or companies in expansion, as well as in state company privatizations. OPIC gives loans and loan and capital stock collateral which are very useful for small and medium companies that frequently do not have access to long term finance in reasonable

conditions and in dollars for projects abroad. OPIC also provides guarantees to small contractors, what places high technology companies and small companies in a better position to compete for construction and turnkey contracts in countries such as Venezuela. Finally, OPIC has prepared a lease program to finance foreign lease companies having US partners.

4.3 HOW TO REGISTER AT OCEI (OFICINA CENTRAL DE ESTADISTICAS E INFORMATICA)

According to the Bidding Law (Section 1), companies providing professional services are exempted from registration with the OCEI (*Oficina Central de Estadisticas e Informatica*). For companies providing other types of services or for suppliers of assets, the documents necessary for registration are listed next.

Documentation required to register with the OCEI

✓ **Legal documents**

1. Legal Evaluation forms (provided by the OCEI).
2. Copy of the Memorandum of Association.
3. Copy of Income Tax returns for the latest two (2) fiscal periods.
4. Copy of the Fiscal Information Registry (*RIF – Registro de Informacion Fiscal*).
5. Notarised special power when the procedure is carried out by a representative.
6. Letter of Authorized Distributor (only required when the company is an Authorized Distributor), including the List of Products, certified by the Venezuelan consulate in the country of origin of the represented company, translated into Spanish by a Public Translator and with catalogues of the manufacturing company.

✓ **Financial documents**

7. The two (2) latest Financial Statements re-expressed as at the day of closing of the latest economic period, audited by an independent Chartered Public Accountant (CPA). For companies recently incorporated, opening balance prepared by an independent CPA. Endorsed. Financial Evaluation form (provided by the OCEI)
   - Auditing Expert Opinion.
   - General Balance.
   - Statement of Results.
   - Patrimony Movement.
   - Cash flow.
   - Grouping of Financial Statements entries.
   - Informative disclosures.
   - Income Tax Returns.

- Proof of non-taxpayer status.

✓ **Technical documents**

8. Technical Evaluation form (supplied by the OCEI)

4.4 BIDDING BY LAW

Purpose: The purpose of this law is to regulate the procedures for contractor selection by the individuals to which Section 2 refers, for the performance of work, the acquisition of movable assets and the supply of services other than professional and work services.

Subject to this Law: The procedures for contractor selection carried out by the following entities will be subject to this Law: National Power Entities, Autonomous Institutes, the Federal District Government Office, National Universities, Civil Associations, Foundations and States and Municipalities.

Glossary

- **Contractor:** Individual or corporate body undertaking a work or supplying assets or non-professional services for any entity to which this Law is applicable.
- **Participant:** Any individual or corporate body who has acquired the documentation to participate in a general bid or an internationally announced bid.
- **Professional services:** The services provided by individuals or corporate bodies as scientific, professional, technical, artistic, intellectual, creative or teaching activities.
- **Contracting entity**: Any of the entities to which the Subject of this Law refers.
- **Qualification**: Examination of the capability of an individual or corporate body to fulfil the obligations arising from a contract, in terms of legal, financial and technical capability.
- **Classification**: Assignment of the interested party to the expert categories of the national Registry of Contractors (*Registro Nacional de Contratistas*) based on its technical capability.
- **Bid types**: General Bid *Licitación General* (it is the competitive procedure for the selection of contractors); Selective Bid *Licitación Selectiva* (it is the special competitive procedure for the selection of contractors); Internationally Announced Bid *Licitación Anunciada Internacionalmente* (it is the procedure for the selection of contractors through international public call).

- **Referential prices**: The Ministry of Production and Trade (*Ministerio de Producción y Comercio*) will have a referential system for price and market monitoring.

- **Regulating entity**: The National Service of Contractors (*Servicio Nacional de Contratistas*) was created to: enter the technical data provided by registering individuals or corporate bodies; supply upon request to private or public entities the information regarding registered persons; prepare and publish a list of registered persons; require from constructors the information requested by the Law.

- **General bids**: Applicable when the acquisition of the contracted assets or services is for an estimated amount above 10,000 Tax Units (*UT – Unidad Tributaria*) (1 UT = Bs. 11,600 - $ 17.57 at US$1/Bs.660). In the event of work construction when the contract to be awarded is for an estimated amount above 20,000 UTs.

- **Selective bids:** For contracts between 1,000 and 10,000 UTs and in the event of work construction for an amount between 7,000 and 20,000 UTs.

- **International bids**: Applicable if the contract amounts to 10,000 UTs. In the event of work construction for an amount up to 7,000 UTs.

- **Direct awards**: To be regulated by the National Executive.

- **Announcements:** The opening of an internationally announced bid will be published in a newspaper circulating nation-wide and in at least an international publication.

- **Terms:** The terms for preparation of the statements of will, will be at least 20 working days counted from the date in which the documentation is available to interested parties, to the latest date for valid presentation of the statements of will. The mentioned terms will be established taking into account the complexity of each particular work or service.

4.5 VISA ISSUANCE REQUIREMENTS

Foreigners in Venezuela are classified as residents and temporary residents (transeuntes), and they should have a visa.

Ordinary Visa (*Visa de transeunte*)

It is valid for 1 year counted as of the date of issuance and gives the right to multiple entries into the country during its effectiveness. There are different types:

- **Transeunte Tourist**: Granted in two modalities to persons entering the country with non-lucrative purposes and for 1 year maximum with the right to multiples entries. The Tourist Card (DEX-2) and the tourist visa itself (seal on the passport obtained at Venezuelan consular offices abroad).

- **The DEX-2 Tourist Card:** Granted to all citizens from countries that have signed International Agreements with Venezuela when entering the country by air, by sea or by land, without further requirement. The DEX-2 is gratuitous and will be effective for six months; during this period, it should be monthly renewed at the Direccion de Extranjeria (Foreign Persons Division) starting after the second month. The tourist visa imprinted in the passport is obtained at Venezuelan consulates and consular offices of Venezuelan embassies abroad.

- **Transeunte business**: Granted to foreigners coming to Venezuela to carry out commercial, industrial and technical, scientific or cultural advising. It is also obtained at Venezuelan consulates and consular offices of Venezuelan embassies abroad.

- **Transeunte labour**: Granted to persons coming with a work contract for a national company or institution for a specific time. It is obtained at the Ministry of Foreign Relations, Alien Division, and at Venezuelan consular offices abroad.

- **Courtesy visa**: Granted by embassies or consular offices at the request of private entities well known in the country of the diplomatic office. This visa authorises its beneficiary to remain in Venezuela for a maximum of 90 days with the right to multiple entries during this period.

- **Others:** 72 hour transit, immigrant and resident visas.

5. BUSINESS OPPORTUNITIES

The Venezuelan environmental market basically is defined by the policies, programs and activities of the public sector. This chapter includes details on the *Ley Paraguas* (the Umbrella Law), and the programs and projects financed by multilateral organizations and other agencies as FIDES and FONVIS. Finally, Schedule D includes the budgets of the three ministries generating greater opportunities for the environmental market, namely, Environment, Infrastructure, and Production and Trade.

5.1 GOVERNMENT BUDGET STRUCTURES

Ministries design their own ordinary budgets based on two main items: the ordinary expenses budget and the investment budget. The first budget is for operating expenses: executing units, local purchases, staff payment, etc. The investment budget is for the construction of new works and infrastructure maintenance.

By constitutional mandate, the National Executive submits to the consideration of the National Assembly the Budget Draft Bill for the pertinent period. Thus, Ministries' budgets are rather rigid, since they are regulated by State Law.

However, the National Executive is empowered to request special credits in the Council of Ministers (*Consejo de Ministros*), and assign them to the Ministries. In this situation, additional expenditure also requires the approval of the *Asamblea Nacional*; in general this is expedited since they are normally emergency matters.

Additional Credits (*Créditos Adicionales*) are assigned to some special activity or works or programs. In this event and depending on the emergency causing the request for credit, the Ministries proceed to hire external services or to implement special projects that were not part of the original ordinary expenditure structure.

The contracting of works or services, both those incorporated under Additional Credit and those contemplated in regular expenditure, are regulated by the procedure set forth in the Bidding Law already analyzed in previous chapters.

On the other hand, Special Programs are assigned to some Ministries according to their field of competence, and such programs are undertaken with funds shared with multilateral organizations. In this event, the resources are jointly managed through a Technical Co-ordination Office (*Oficina de Coordinación Técnica*) specially created for this purpose.

The sums authorized by law to the National Executive for the contracting and performance of public credit operations are known as the *Ley Paraguas*.

However, the public credit operations provided in this *Ley Paraguas* which are not contracted during the fiscal period for which they were authorized, may be contracted in the following fiscal period.

The National Executive may, through the *Ley Paraguas*, negotiate loans with national and international financial institutions and issue and grant public debt certificates in domestic and international markets, issue *drafts* and accept *bills of exchange* and sign any other contract authorized by the law.

Details of the *Ley Paraguas* budgets for the years 1999 and 2000 are given next.

CONTRACTS AND EXECUTION OF PUBLIC CREDIT OPERATIONS
FISCAL YEAR 1999

	CONTRACTS		DISBURSEMENTS	
PROGRAMS OR PROJECTS	**Internal (US$ MM)**	**External (US$ MM)**	**Internal (US$ MM)**	**External (US$ MM)**
Min. of the President's Secretariat	2.42	100.00	2.42	12.98
Ministry of Finance	0.00	547.90	0.00	771.80
Ministry of Industry & Commerce	0.00	60.00	0.00	
Ministry of Interior Relations	0.00		0.00	
Ministry of Defence	0.00	500.00	0.00	611.20
Ministry of Education	24.74		24.74	75.00
Min. of Health & Social Welfare	3.89		3.89	48.00
M. of Agriculture & Stockbreeding	5.80	80.00	5.80	67.00
M. of Transportation & Communicat.	15.78	305.00	15.78	565.00
MARN	17.66	83.00	17.66	139.50
Ministry of Urban Development	5.15		5.15	27.00
Ministry of Justice	0.00		0.00	4.00
Supreme Court of Justice	0.00		0.00	2.00
Council of the Judiciary	2.27		2.27	8.00
Ministry of Labour	2.56		2.56	10.00
Ministry of the Family	8.83	70.00	8.83	38.50
TOTAL	89.11	1,745.90	89.11	2,379.98

CONTRACTS AND EXECUTION OF PUBLIC CREDIT OPERATIONS
FISCAL YEAR 2000

PROGRAMS OR PROJECTS	CONTRACTS		DISBURSEMENTS	
	Internal (US$ MM)	External (US$ MM)	Internal (US$ MM)	External (US$ MM)
Min. of the President's Secretariat	0.00		0.00	
Ministry of Finance	0.00		0.00	192.19
Ministry of Production & Commerce	45.45	551.30	45.45	85.85
Min. of Interior Relations & Justice	4.55	171.00	4.55	19.00
Ministry of Defence	0.00	429.00	0.00	429.00
Min. of Education, Culture & Sports	18.18	100.00	18.18	57.00
Ministry of Health & Social Welfare	3.03	60.00	3.03	66.10
Ministry of Energy & Mines	0.00	672.00	0.00	680.60
Ministry of Infrastructure	100.01	1,592.87	100.01	792.39
MARN	77.58	476.00	77.58	335.00
Min. of Planning & Development	0.00	46.00	0.00	12.50
Min. of Science & Technology	0.00	27.50	0.00	16.50
Supreme Court of Justice	0.00		0.00	1.98
Council of the Judiciary	151.52		151.52	5.29
Ministry of Labour	0.00		0.00	10.00
Attorney General's Office	0.76	75.00	0.76	5.00
TOTAL	401.07	4,200.67	401.07	2,708.40

5.2 VENEZUELAN PROJECTS FINANCED BY MULTILATERAL ORGANIZATIONS

The Minister of Finance, Jose Rojas, recently declared (El Universal newspaper: 2-27-00) that the National Government does not intend to incur into any external debt additional to that established in the *Ley Paraguas* and that the limits permitted in this sense have been respected.

He added that there are still outstanding authorizations of the years 1996 and 1997, which have not yet been used, as well as even borrowing permits for labour liabilities.

In this sense, the National Government is preparing a rescheduling of the credits with multilateral organizations and work is being done to redirect the resources originally assigned by financial entities to other projects which are a priority under the present circumstances.

The most important projects financed by multilateral agencies are described next.

5.2.1 Venezuela-Inparques Project-World Bank #VEPA8237 (1995)

IMPLEMENTING AGENCY: National Institute of Parks (*Instituto Nacional de Parques INPARQUES*)

Venezuela has been identified as one of the world's most biologically diverse countries, and has been classified by the World Wildlife Fund for Nature as one of Latin America's six mega-diversity countries. Venezuela also has a long conservation tradition; it established its first national park in 1937, and it created the first Ministry of the Environment and Natural Resources (MARN) in Latin America in 1977. Venezuela also has a National Institute of Parks (*Inparques*), other agencies with responsibility for environmental protection and management, a strong non-governmental conservation movement, and a comprehensive body of sound environmental legislation.

As a result, today the country has the basic legal and regulatory framework needed to implement environmental conservation projects. At the same time, there remains a need for stronger efforts to (a) integrate environmental concerns into development and investment planning; (b) strengthen the institutional capacity of MARN and the main public environmental agencies; and (c) improve substantially the management of the extensive biodiversity resources in Venezuela's protected areas system.

In December 1992 the World Bank Board of Directors approved the Venezuela National Parks Management Project to address the above concerns. However, the Loan was withdrawn, without having become effective, in June 1994 when 18 months elapsed without Loan signing. The delays in Loan signing were due to a number of legislative and other problems caused primarily by the unstable political situation prevailing during the period. This new proposed project would be based upon the original design of the National Parks Management Project.

PROJECT OBJECTIVES: The project would help to (a) strengthen the capability of Inparques and other key public agencies involved in environmental protection to manage Venezuela's national and urban parks, natural monuments and wildlife refuges; (b) intensify public environmental research, training and education efforts; and (c) improve the financial sustainability of national parks and other protected areas.

DESCRIPTION: The project would have the following components: (a) Parks Management and Protection: Basic infrastructure, equipment and incremental operating costs in 20 national parks, 2 wildlife refuges and 7 urban parks in various parts of the country. The component would also expand the Inparques fire prevention and control capacity by establishing nine principal and 13 auxiliary camps that would extend protection to 28 of the countries most fire-prone areas. (b) Environmental Research: Research programs and studies, as well as infrastructure, equipment and materials for research to increase the availability of natural and social science information for effective management of national parks, natural monuments and wildlife refuges. (c) Environmental Education: Educational and planning

equipment for the Inparques central office and visitors centres in the parks, training, technical assistance and incremental staffing costs for the expansion and establishment of educational activities. (d) Institutional Development: Training, technical assistance and studies, physical infrastructure, equipment, furniture and other incremental operational support for Inparques and other project institutions.

Consulting services would be required for each component.

COSTS, FINANCING AND SUSTAINABILITY: The estimated project costs are US$96.0 million, of which US$55.0 million would be financed by the World Bank Loan, and the remainder by the Government of Venezuela. Retroactive financing is expected to be recommended for up to 10% of the World Bank Loan. As noted above, a project objective would be to improve the financial sustainability of the national parks and other protected areas by helping Inparques generate an increasing share of its own revenues.

IMPLEMENTATION: Inparques would be the principal implementing agency. Other Government agencies that would be involved include: Autonomous Service for the Environmental Development of the State of Amazonas (*Sadamazonas*) for activities in Amazonas State; *Profauna* (National Wildlife Office) for the wildlife refuges; and *FAC* (National Guard) on matters of law enforcement. The President of Inparques would be responsible for overall project administration and policy direction. He would consult on overall policy aspects with the existing Inparques Governing Board (*Junta Directiva*), which includes representatives of the private sector, NGOs, trade unions and universities. The President would be assisted on a day-to-day basis by a Project Co-ordination Unit (PCU), which would be responsible for planning and co-ordinating technical activities and for monitoring and evaluating project results. Participation Agreements between Inparques and Sadamazonas, Profauna and FAC have been signed and the PCU has been established.

BENEFITS AND ENVIRONMENTAL AND SOCIAL ASPECTS: The project would have a positive environmental impact by directly enhancing the management and protection of approximately 110,000 km^2 of protected areas, including important areas for biodiversity, and by indirectly strengthening the capacity to manage all of Venezuelans protected areas (some 500,000 km^2, an area the size of Spain) through training, education and institutional capacity-building activities.

Major economic benefits attributable to the project would come from the project's positive impact on watershed management, which would reduce the need for future expenditures in sectors such as irrigation, power generation and urban water supply. No involuntary re-settlement is envisaged. Six of the national parks that would receive direct project support have indigenous people living within their boundaries, but no adverse project-related interventions are expected. Project activities in the four parks in Amazonas State where larger indigenous communities are located would be limited to research for the development of management plans and protective activities. Support for the two more

accessible national parks (Canaima and Santos Luzardo, Bolivar and Apure states) where smaller indigenous groups are located would limit visitors to designated sections, which would aim generally to reduce the pressure on critical conservation and indigenous sub-areas. Project-supported mechanisms for local community participation in park planning and management would also apply in these six parks.

PROGRAM OBJECTIVE CATEGORIES: As described above, most project activities and benefits are related to environmental management and protection, and therefore the project would be designated as belonging to the Program Objective Category (POC) of Environmentally Sustainable Development. It is expected that the project would not be included in the Poverty Category: Program of Targeted Interventions.

5.2.2 Venezuela-Environment and Cartography Project- World Bank #VEPE35743 (1997)

IMPLEMENTING AGENCY: *MARN* (Ministry of the Environment and Natural Resources)

ESTIMATED COST, FINANCING AND IMPLEMENTATION: IBRD $30 million, Govt. $20 million, Total $50 million.

MARN is the principal executing agency. MARN has demonstrated commitment to taking the steps necessary to achieve the objectives of the project through its current efforts to restructure and reorganise the ministry and dependent agencies. A reorganization plan has been presented to the Presidential Commission on Restructuring (year 1997) and a revised restructuring plan is being prepared for submission to *Cordiplan* (1997).

The limited planning, monitoring and enforcement capabilities of MARN, combined with the excessive complexity of the permit system, exacerbate environmental degradation and discourage participation in environmental protection and self-monitoring by private sector investors. Twenty years of gradual bureaucratic expansion has led to duplication and overlap of administrative functions, a loss of appropriate accountability among agencies, a confusion of strategic and operational functions, and increasing public cost for the maintenance of the Ministry. At the state and municipal level, the lack of institutional capacity and incentives limits the responsiveness of these levels of government in assuming and carrying out environmental management.

Fragmented national and sub-national policies, monitoring, and enforcement as the result of the growth of a number of autonomous services (*SAS*) and institutes, and particularly with regard to the issuance of permits.

While many of the SAS were created to encourage the focusing of technical expertise and cost-recovery, they have not achieved acceptable financial cost-recovery, have become financial burdens to

the central ministry, and involve potential conflicts between technical and regulatory functions and revenue generation activities.

Institutional Framework for Environmental Management MARN´s senior management, in collaboration with Cordiplan, has initiated a critical examination of the Ministry's roles and functions aimed at redefining appropriate roles for the Ministry, at modernising the sector, and at improving the provision of services in order to increase the effectiveness of environmental protection in Venezuela. This initiative has contributed to a national strategy aimed at increasing effectiveness and efficiency in public sector administration, strengthening strategic and normative functions of the central government, reducing budgets, decentralising operational activities and the provision of government services, and encouraging increased private sector accountability. Early in 1995, the new administration decided to undertake a series of studies to guide its efforts to strengthen environmental management in the country. The first series of studies, carried out with financing from FAO, concluded that the strengthening of the institutional capability of MARN, both centrally and in its regional offices, was critical for the success of all other efforts to solve environmental issues. As a result, the GoV asked the assistance of the World Bank in preparing a project that would include strengthening of some key environmental management functions and related administrative processes in MARN.

However, the project is not simply an effort to strengthen the existing ministry. Rather, the aim is to assist the GoV in redefining the role of the ministry within the framework of modernising the sector. Thus, while the purpose of the project is regulation/enforcement functions in the Ministry, it is clear that major organizational reform is a necessary part of the overall institutional modernization for the sector. The project responds to a number of the identified sector issue:

(1) At the Central level, the project aims to support the redefinition of MARN´s role and to strengthen the administrative efficiency of MARN in its redefined strategic, normative, and regulatory role by: (i) supporting the reorganization of the ministry and simplifying and/or introducing new administrative procedures; (ii) strengthening the management information capabilities of the ministry through computerising processes, operations, and information systems; (iii) creating CNVTTA National Centre for the Transfer of Environmentally Sound Technologies (*Centro Nacional Ambiental de Transferencia de Tecnologia*); (iv) preparing procedures manuals; (v) improving and consolidating administrative support systems (planning, financial management, human resources management, and procurement procedures); and (vi) improving human resources management.

(2) The effort to strengthen decentralised and deconcentrated levels of government is aimed at improving the local capabilities to respond to specific environmental problems and to transfer operational functions to these levels. Pilot programs under the project would provide organizational and environmental management expertise, equipment, and training to the staff of the environmental agencies in two states, Falcon and Nueva Esparta, and four

municipalities, two in each state, such that these agencies, some recently created, acquire the capabilities they need to carry out their operational responsibilities.

(3) Under the current reform and the project, the permitting and monitoring functions of specialised agencies will be reinforced, and the income-generating environmental services will be consolidated in a new single permitting agency (*Servicio Autonomo de Gerencia Ambiental SAGA*) with modernized administration and management. At the same time, support generation and cost recovery functions from policy-making and regulatory activities.

(4) The project will encourage increased private sector participation and require the private sector to assume the costs in several key areas including providing environmental laboratory services, preparing environmental impact studies, and monitoring mitigation plans.

(5) The project will provide financing for acquiring data, for baseline planning (particularly cartographic data); for improving the technical and the management information systems; and for providing support to the National Cartography Service. The generation of improved baseline information will also benefit private investors. The projects also support both general environmental education and awareness, as well as the transfer of environmentally sound technologies (with the creation of the CNVTTA).

Twenty years of expansion of the activities and functions of MARN have created a ministry that performs neither normative nor regulatory functions adequately, yet continues to play a strong interventionist role and to carry out operational activities at all levels. In the face of a deteriorating environment and a difficult national economic situation, the GoV has identified the need to (1) alter the central role of MARN to perform normative and regulatory functions, (2) strengthen environmental management by modernising the institutional capacity at the national, state and local levels, and (3) strengthen the role of the private sector and NGOs in environmental management. While the purpose for reforming the environmental framework in Venezuela is not simply to strengthen environmental policy/management and regulation/enforcement functions in the Ministry, it is clear that major organizational reform is a necessary part of the overall institutional modernization for the sector. The Government's environmental modernization program has an integrated approach to improve the capabilities of the Ministry of Environmental and Natural Resources in planning and managing renewable natural resources throughout the country and to provide appropriate incentives and disincentives to private sector environmental management and use.

PROJECT OBJECTIVES: (a) redefine the central role of MARN and modernize the administrative and technological structure of the ministry to respond to the need for improved capacity for cartography, national environmental assessment, legislation, enforcement, and management, as well as to facilitate the national level capacity for environmental planning and education; (b) provide for improved incentives for the private sector through the strengthening of market-based instruments; (c) improve cost recovery and service provision by the ministry; and (d) strengthen the decentralised operational capacity for environmental management, planning, and responsiveness of Government.

PROJECT DESCRIPTION

1. Modernization of MARN

- **National Cartography Institute (*Instituto de Cartografía Nacional*)**

Modernize the Venezuelan cartography by creating a digital cartography system to supply public and private sectors organizations with mapping information to be used for business development, e.g., environmental assessment of hydrocarbon and mining concessions, and of facilities and operations; demarcation of national parks and protected areas, etc.

- **Environmental Quality**

Strengthening of strategic functions focusing on Improved Environmental Impact Assessment Permitting System & Certification of Firms for Performing EIAs National Reference Environmental Laboratory and Monitoring Network Environmental Technology Transfer Centre.

- **Surveillance & Enforcement**

This will focus on legislation & regulations.

- **National Environmental Planning, Environmental Studies, and Environmental Education**

Integrated socio-economic & environmental planning system; environmental studies; national environmental action plan; environmental education in primary & secondary schools and community participation.

- **MARN´s Reorganization and modernization of some Administrative Processes**

Renovation of headquarters offices; Modernization of MARN planning & budgeting office; Modernising the communications & administrative information; Systems, procurement, human resources, and payments & receivables establishment of SAGA (*Servicio Autonomo de Gerencia Ambiental*); MARN´s professional development.

2. Environmental management at the state and municipal levels

Environmental management pilot project states Falcon (and municipalities of Coro, and Miranda) and Nueva Esparta (and municipalities of Mariño and Marcano); State and municipal environmental management technical assistance program.

3. Project Co-ordination Unit

To ensure co-ordination among the various project components and sub-components and facilitate project implementation.

4. Associated Projects

Grant funds to co-finance incremental costs through the Technology Centre. These funds will be used for: training to transfer knowledge on methods to mainstream biodiversity into development objectives, application of environmentally sound technologies, and support for establishing finance mechanisms for pollution prevention technologies. GoV and the private sector will finance the basic costs of these activities.

Finally, a major thrust of the project aims at decentralising and deconcentrating environmental management functions (to deconcentrated units of *Servicio Autonomo de Gerencia Ambiental* and to states and municipalities), as well to encourage increase private sector participation in both the cost of monitoring and in a better understanding of its role in environmental management. A Project Co-ordinating Unit PCU (*Unidad de Coordinacion*) within MARN would be responsible for day-to-day operations of the project. The PCU, staffed by highly-qualified personnel (well versed in internal control, project accounting, project financial management and indicators, and audit arrangements) would be established as a condition of appraisal. A project management system, and project monitoring and information system are to be established prior to negotiations. The PCU will be financed by the project and will include a technical co-ordinator, decentralizations specialist, purchasing agent, construction engineer, training co-ordinator, and support staff.

By strengthening MARN´s environmental policy-setting and management functions, the project would help the Ministry fulfil its role as the lead agency for the sector and build the institutional capacity required to fully implement sustainable development goals called for in Agenda 21 and in national legislation. The project's support of state and local governments and NGO´s participation in environmental management in Venezuela, together with increased cost-recovery for services (cartography, permitting, lab certification and services) should help ensure the sustainability of project activities and benefits beyond the 5-years life of the project. The incremental costs resulting from project activities will be kept to a minimum. In addition, MARN restructuring; including deconcentration, decentralization and promoting private sector participation/involvement will result in more efficient environmental management. The SAGA will serve as a single mechanism for granting environmental permits to the appropriate technical General Directorates of MARN and is designed to recover costs through the permitting process. Finally, significant input has been sought from the private sector/NGO community.

5.2.3 Venezuela-Agricultural Extension Project - World Bank # VEPA8222 (1994)

IMPLEMENTING AGENCY: *Fundacion para la Capacitacion e Investigacion Aplicada a la Reforma Agraria (CIARA* - Foundation for Training and Applied Research for Agrarian Reform)

LOAN AMOUNT: US$40.0 million

PROJECT FINANCING: Total Cost of project (approximately US$65.0 to 75.0 million) to be divided equally between the Bank and the Government of Venezuela.

PROJECT OBJECTIVES: The objective of the AEP would be to make available improved public agricultural extension services to small and medium sized farmers throughout the country.

PROJECT DESCRIPTION: The project would establish, at each level of government (national, state, and municipal) the institutional structure necessary to provide for small and medium sizes farmers a new decentralized system of publicly supported agricultural extension. It would support extension activities at the municipal level. Municipal units or private firms under contract would execute these extension services. The project would also support training of extensionists, and the activities of co-ordinating offices at the state and national levels. The project would consist of four basic components: (i) the establishment of the necessary institutional structure at the state and national levels of government; (ii) agricultural extension activities in municipalities; (iii) training for extensionists; and (iv) technical assistance and studies.

BENEFICIARIES: Approximately 300,000 small and medium sized farmers in 180 municipalities, CIARA, and the municipal governments.

ENVIRONMENTAL ASPECTS: The project is expected to have an environmentally neutral, if not positive, environmental impact.

5.2.4 Programme for Low-Income Housing Solutions - IDB #928/OC-VE (1996)

IMPLEMENTING AGENCY: *Instituto Nacional de la Vivienda (INAVI* – The National Institute of Housing)

TOTAL COST: US$87 million

FINANCING: IDB US$52 million, Local US$35 million

DESCRIPTION: The objective is to improve low-income population access to housing by adopting a direct subsidy system and innovative mechanisms for beneficiary selection in four Venezuelan states

in order to have a new housing solution or improve the existing one. Other program objectives are: (a) reinforcement of the institutional capacity of the entities participating in program implementation; and (b) identification and drafting of change proposals for the main problems associated with the country's housing policy.

The program will comprise the following components: (a) investment in 10,000 new housing units, from lots with services to basic housing, and in 7,000 housing units in the slums (infrastructure improvement and new housing). (b) Technical assistance to the implementing entity's regional units. (c) Promotion, including a social marketing plan to stimulate collective management at the local level, making the program known through radio and printed means; Technical support services for the training and organization of housing base organizations. And periodic action in each region according to specific needs. (d) The studies and planning necessary to ensure adequate generalisation of the program's mechanisms and recommend policy, legal and institutional changes leading to improve the efficiency of Government's performance in the housing sector. And (e) Administration, including the hiring of staff for the implementing entity and its regional units, as well as acquisition of equipment and payment of operating expenses.

ADVISING: Consultants will be hired to carry out the following activities: (a) increase the efficiency of implementing entities; (b) implement the beneficiary eligibility system; (c) expand the existing information system and train the staff to use it; (d) perform the program's final evaluation; (e) conduct the studies and planning necessary to ensure that the mechanisms tested in this pilot program are adequately implemented; adapt proven efficiency mechanisms to the changes that may arise in macroeconomics and the sector's environment; recommend policy, legal and institutional changes leading to improvement of Government's performance efficiency in the sector and organise a seminary to review the recommendations and prepare an action plan; and (f) supervise construction works and housing improvement.

CIVIL WORKS: The following civil works will be financed: (a) construction of new housing (approximately 10,000 units); and (b) Housing improvement (approximately 7,000 units).

5.2.5 Caruachi Hydro-Electric Project-IDB #788/OC-VE (1993)

TOTAL COST: US$2,130.4 million

IMPLEMENTING AGENCIES: 1) *C.V.G - Electrificacion del Caroni C.A. (EDELCA* – Electrification of the Caroni River), 2) *Fundacion para el Desarrollo del Servicio Electrico (FUNDELEC* - Foundation for Electricity Services Development)

FINANCING: IDB US$ 500 million, Local US$1,630.4 million

DESCRIPTION: The purpose of this project is to contribute to meeting the growing electricity demand in the country by using the Lower Caroni river hydrologic resources. A parallel auxiliary project will be carried out for institutional strengthening of *FUNDELEC* and support of the electricity sector reform program being developed by the Government of Venezuela (regulatory and institutional framework and pricing policy for electricity and electric-use fuels) to promote a most efficient use of energy resources. The project comprises the construction of a 2,160 MW installed capacity hydroelectric power plant that will produce a 13,300 GWH average electric power for the national interconnected system. Performance of the Environmental Handling Plan and the Study for the Integral Handing of the Caroni River Basin are also included.

ADVISING: The services of specialised consultants will also be hired to undertake technical, institutional and legal studies to support the institutional strengthening activities of the electric sector.

5.2.6 Control of Valencia Lake Level and Supplementary Works - IDB # VE/0079 (1995)

IMPLEMENTING AGENCY: MARN

FINANCING: BORROWER: US$ 67.5 million, IDB: US$135 million,

CO-FINANCING: US$ 67.5 million

HISTORICAL: MARN is implementing the *"Programa de Saneamiento Ambiental Integral de la Cuenca del Lago de Valencia"* (Integral Environmental Sanitation Program of the Valencia Lake Basin). In the first stage of the sanitation program, the works necessary to cover the water supply deficit are being undertaken by MARN with resources of the 538/OC-VE loan. The second stage, financed by the Project for the Sewage Water Treatment Systems of the Valencia Lake Basin is being undertaken with resources from the 557/OC-VE loan, also by MARN. It comprises the construction of sewage water conducting works and treatment in the main cities of the basin and studies to define the third stage, which basically includes the works to control the rise of Valencia lake and supplementary sanitation works.

The products of the first two stages, which solve the water supply and basic sanitation problems, have generated two situations to be considered:

- The volume of sewage water draining into the lake is increasing and since the lake is a confined water body, the water level will cause flooding in areas having infrastructure and an intensive agricultural activity. Level increase has been reported since 1978. From this year on, the level has increased over 5 meters and it will increase even more when the central region water supply works are incorporated. This makes the control of water levels to avoid the flooding of new areas unavoidable.

- The increase of sewage water has compromised the quality of the lake's water. 90% of the contamination will be controlled through the Mariposa and Maracay-Taiguaiguay systems currently under construction, but it will be necessary to complement the sewage water treatment service in the towns of La Victoria and Guigue and improve that of La Cienaga El Paito.

MARN took the initiative of controlling industrial origin contamination through the obligation by industries to install pre-treatment systems. The 557/OC-SF loan included activities for the monitoring and control of industrial contaminating discharges, studies of tariff levels for industrial users, and studies of non-punctual contamination of agricultural origin.

STRATEGY AND BASIS OF THE BANK'S PARTICIPATION: The Bank has been supporting the implementation of the first two stages of the Integral Environmental Sanitation Program of the Valencia Lake Basin. It is necessary to continue participating in the third stage that includes activities for control and mitigation of the environmental impact of the previous stages and activities that complement the integral program originally proposed. Additionally, one of the aspects of the Bank's strategy in Venezuela is to improve the State's capability to deliver public services, particularly for low-income groups.

PROJECT OBJECTIVES AND DESCRIPTION: The main objective is to control the environmental impact of the previous stages and supplement the basin's integral sanitation program. For this purpose, engineering works to control the rise of the lake's water level and sanitation supplementing works have been proposed.

EXPERIENCE OF THE BANK AND OTHER FINANCING ORGANIZATIONS: A total of 8 loans amounting to US$259 million have been granted for sanitation since 1961; 6 for water supply and urban sewerage (US$239 million) and 2 for rural aqueducts (US$20 million). A loan was granted in 1993 (*Programa de Conservacion and Manejo de Cuencas Hidrograficas* – Program for Conservation and Handling of Hydrographic Basins) to be used by MARN, which is currently in the stage of fulfilling the previous conditions for the first disbursement. The World Bank is working with the company Aguas de Monagas as a pilot experience to test alternatives to be eventually replicated in other states. Additionally, MARN and the World Bank will act jointly for institutional strengthening at national level and in the Metropolitan Area of Caracas.

5.2.7 National Urban Transport Program - IDB # 818/OC-VE (1994)

TOTAL COST: US$140 million

IMPLEMENTING AGENCIES: *Fondo Nacional de Transporte Urbano (FONTUR* – The National Urban Transportation Fund), with the municipalities and commonwealths aiding in the implementation.

FINANCING: IDB US$70 million, Local US$40 million, Others US$30 million (*Corporacion Andina de Fomento* – The Andean Development Corporation)

GENERAL DESCRIPTION: The objective of this program is to mitigate transportation problems in Caracas and other cities by strengthening the management capability of municipalities to take adequate care of the administration of service and the operation and maintenance of their infrastructure and systems.

The specific objectives of this program are: (a) improve central and local institutional capability for the planning, co-ordination, preparation, operation and maintenance of urban traffic and transportation systems with emphasis in public transportation; (b) create a favourable environment for the private sector to increase investment in public transportation vehicles; (c) introduce traffic administration systems, improve urban transportation policies, equipment and infrastructure, and reduce traffic congestion and accidents; (d) design and instrument policies to reinforce the financial feasibility of urban transportation systems; (e) facilitate the access of low-income urban population to transportation services; (g) reduce the existing levels of environmental contamination; and (h) promote improvement in national circulation safety and easiness.

The program has three auxiliary programs: (a) institutional strengthening: support for the work carried out by the *Fondo Nacional de Transporte Urbano (FONTUR* – Urban Transportation National Fund) through six projects, namely, institutional strengthening of *FONTUR*, institutional strengthening of the municipalities, staff training in urban transportation, urban traffic surveillance, implementation of an action plan for the *Area Metropolitana de Caracas* (AMC – Metropolitana Area of Caracas) and policy improvement of the urban transportation sector; (b) financing of two investment projects, one for physical and operating improvement and another for roadway maintenance and rehabilitation; and (c) pre-investment, including project preparation in the municipalities not included in the sample and specific studies.

ADVISING: In the institutional reinforcement auxiliary program, the services of national and international specialised consultants will be hired to provide technical assistance and training to *FONTUR*, the municipalities, the commonwealths, AMC and the traffic and surveillance municipal systems.

CIVIL WORKS: Resources will be invested in traffic systems, road infrastructure and public transportation facilities. Medium work size will be between US$0.5 million and US$3.0 million and, in general, they will be simple works not requiring sophisticated equipment or techniques. The only project requiring pre-qualification by construction companies is the traffic lights project for downtown Caracas. Periodic maintenance and road rehabilitation activities will be undertaken by the municipalities through contracts.

5.2.8 Support Program for Initiatives and Management by Civil Community Organizations (PAIS)

BORROWER AND GUARANTOR: The Republic of Venezuela

IMPLEMENTING AGENCY: The Ministry of the Family through the *Fondo de Inversion Social de Venezuela (FONVIS* – The Venezuelan Social Investment Fund)

AMOUNT AND SOURCE: IDB (Local currency): US$12 million, Local contribution: US$8 million, Total: US$20 million

OBJECTIVES: The main objective of this program is to create and develop a pilot mechanism for co-participation among public, private, and civil community sectors to finance the projects and activities formulated and implemented by civil community organizations (OSC - *Organizaciones de la Sociedad Civil*). The beneficiaries are poverty groups excluded from social welfare networks.
The proposed program will specifically focus on: (i) stimulating the development of mechanisms involving the public, private and OSC sectors in the financing and management of projects and activities; (ii) strengthening the capability of the OSC to manage programs and activities in favour of excluded groups; and (iii) design and implement, with participation of the OSC, projects and activities aimed at increasing access to social services of poor population segments lacking attention.

DESCRIPTION: The program will take care of the OSCs and beneficiary populations through:

Components: 1. Management of the OSCs (US$4.3 million). The purpose of this component is to strengthen the technical and organizational capability of the OSCs and support their incorporation to the co-participation model, by installing at local level the capability to deliver services in a more efficient, effective and sustainable manner. 2. Projects and Activities (US$11.9 million). This component finances five lines of action: productive activities, family, education, health and innovative projects. 3. Monitoring and External Evaluation (US$1 million). This component will finance the monitoring and evaluating of the two previously mentioned components and the proposed institutional scheme. Program monitoring will be carried out by a specialised independent entity to be selected jointly by the Program's conducting level and the Bank according to the procedures in force. This component finances three lines of action: (a) compiling of data and information from the other two components with emphasis on the operation of the co-participation model; (b) national and international dissemination of the information and exchange of experiences; and (c) evaluation including the program's Medium Term Evaluation and the Final Evaluation.

Conduction, Administration and Implementation (US$2.7 million): It comprises the financing of Program expenses at conducting level, implementation level (Management of PAIS) and the drafting and implementation of Promotion and Resources Capture Plans.

BENEFITS: This pilot program will permit to incorporate groups excluded from welfare networks resorting to the initiative of OSCs and with the financial support of the public and private sectors. Simultaneously, the co-participation mechanism will permit to deepen the rapprochement among government entities, the private sector and the civil community.

5.2.9 The Agricultural Plan - IDB

As part of the implementation of the Food and Agricultural Development, investments amounting to US$560 million will be made in the year 2000; from this amount, US$280 million will be contributed by the IDB. This information was supplied by the Vice-Minister of Food and Agriculture of the Ministry of Production and Trade on 3/21/2000, when a mission of the IDB was in Venezuela reviewing investment projects.

Agricultural projects implemented with the IDB's help are: title documents, registration and land registry (US$100 million); land sanitation, drainage and irrigation (US$200 million); transfer and rehabilitation of medium irrigation systems (US$200 million); rural communities consolidation and transfer of small Andean irrigation systems (US$40 million); and management for improvement and institutional strengthening of the Vice Ministry of Food and Agriculture and the *Servicio Autonomo de Sanidad Agropecuaria (SASA* - Autonomous Service of Agro-livestock Health (US$ 20 million).

Some of these projects are rather advanced and they may be ready to receive the resources on the first half of 2000.

5.2.10 Corporacion Andina de Fomento (ADC – The Andean Development Corporation), Venezuelan Projects

During 1999 Venezuela continued to be one of the countries with the greatest relative weight (20%) on the total ADC's portfolio. Venezuela registered a balance above US$1,000 million and maintained an important level in terms of approvals and disbursements which are, to this date, of approximately US$120 million and US$273 million, respectively.

One of the projects with greatest strategic content due to the positive impact that it will have on economic and social development, as well as for its comprehensive content, is the Orinoco-Apure Fluvial Centre Project which received the ADC's approval for a US$10 million long term loan. The priority investments of this Project will be financed with this loan. The project's goal is to make possible year-around navigation between Puerto Nutrias and the mouth of the Apure river in the Orinoco, as well as the rehabilitation of the main ports within this segment, as part of the main objective of replanning the territorial usage of land by applying sustainable development criteria.

Likewise, the purpose of the project is to offer reliable and low-cost transportation linking the western end with the Guayana region and the Atlantic Ocean, and the central plains with interconnections to Brazil and Colombia.

Moreover, Venezuela shares with Brazil the benefits arising from the *Interconexion Electrica* (Electric Interconnection) and the Corredor Vial de Integracion Carretera BR-174 (Integration Road BR-174) projects. The first project permits to take surplus electric power from Guri to Boa Vista and other towns in Roraima state, Brazil. The second project links Santa Elena de Uairen with Manaos, to contribute to the of increase trade between the two countries.

Another approved loan -US$21.5 million- will be used to finance the Yacambu-Quibor Hydraulic System. This will permit the continued construction of the System's water transfer tunnel and complete the gravel dam. These works will guarantee water supply to Lara state and irrigation to the Quibor valley.

With approximately US$200 million -73% of the total disbursements in Venezuela- for improvement of basic services infrastructure (water, electric power and massive transportation) and for social programs, the ADC continued its contribution to stimulate economic activities benefiting many population sectors and increasing their life standards. The following activities were financed within this context: the implementation of infrastructure strategic projects such as the Caracas Subway, the Metropolitan Aqueduct, the Rehabilitation of Maracaibo lake sewage waters and a program for electric power generation and transmission by *EDELCA*. Pre-investment studies were also financed (*Ofimetro* and bi-national roads), as well as several social projects

The ADC successfully maintained its co-financing program with other international financing institutions through the modality of A/B loans to attract resources for the development of infrastructure programs, mainly from the private sector. In this sense, the ADC signed a US$34,2 million loan with *INFONET, Redes de Informacion C.A.*, in which the German KFW agency also participated.

The purpose of this operation is the partial financing of wireless telecommunication service, particularly the rural service, in the western region to meet communication needs in little developed rural areas located in remote zones of Venezuela. This tool will facilitate their economic and social integration with the rest of the country.

On the other hand, support to local banks was maintained through short and medium term credit facilities to finance the production sector and incorporate *BANGENTE*, an institution dedicated to grant loans to micro-enterprises.

To support community projects, the ADC channelled resources through the *Fondo para el Desarrollo Humano (FONDESHU* – Fund for Human Development) and approved financing (US$435 thousand) for an organic coffee production program aimed at promoting this variety within an integral sustainable development system and at improving the population's quality of life in several municipalities of Merida state.

Another loan of this type -US$500 thousand- will be used to finance a sustainable development project consisting on shrimp breeding at the Gran Eneal lagoon, Zulia state, aimed at improving the quality of life of the Wayuu and Paraujana ethnic groups located in the area.

The non-reimbursable resources granted through technical co-operation operations totalled US$700,000 and, among them, it should be pointed out the partial financing of a competitiveness program for the Olefins Chain –grouping private and public companies of the plastic industry- and the support to the *Plan Operativo de Energias Renovables (PODER* – Operating Plan of Renewable Energies), which seeks to help solve the energy services deficit in isolated rural and border regions. Additionally, resources were used for integration activities, general development issues, global strategies and policies, environmental programs and socio-cultural activities.

In the five year period (1994-1998), approvals for Venezuela totalled US$2,361.2 million with a 10.3% average annual growth rate. In 1997, the approval of long term operations reached 99.8% of the total.

The loan portfolio with Venezuela closed in 1997 with US$599.6 million, 108.7% above the amount in 1993. For the same period, the long term loan portfolio increased by 309.7%.

In 1997 ADC's technical co-operation in Venezuela reached US$1.1 million. This sum was used to help industrial sector activities, multisectorial activities, institutional support and culture related activities, integration and the environment.

On the other hand, the ADC is currently financing the *Proyecto Nacional de Mejoramiento del Sistema de Pronostico Hidrometeorologico* (Improvement of the National Hydrometeorological Forecast System). This project is comprised within the objectives to promote the modernization of the Meteorological and Hydrological Services and is part of the Ibero-American Clime Project currently being developed with the support of the IDB for Latin America.

The purpose of the project is to install modern equipment and train specialised staff to make accurate forecasts, a swell as a better handling of natural resources through real time knowledge of hydrometeorological variables and their associated weather phenomena.

By using the available infrastructure and with the project in operation, a "*Centro Nacional de Alerta and Pronostico Hidrometeorologico*" (*CENAPH* - National Centre for Alert and Hydrometeorological Forecast) will be created to compile real time data from sensor systems at the stations located in various basins. The project is spread throughout the country with main offices and operation headquarters in Caracas and auxiliary centres in different country regions. The project means:

- The modernization of 40% of the meteorological stations and the expansion of 55% of the hydrometric stations by changing to advanced technology.
- The communication systems will use a combination of the data compiling systems GOES, VSAT, UF/SSB networks, VBF/UHF networks and commercial services by cable.

- Application of the Basin Unity principle.
- A reception centre for data coming from the country's main river basins.
- The CENAPH in Caracas.

Current situation: In August 1997, MARN submitted a credit request to the ADC for US$55 million to finance the project to be implemented by MARN through a loan agreement between the ADC and the Republic de Venezuela. The feasibility study prepared in 1994 was updated in January 1998 and, after being evaluated, the agreement was signed in December 1998. The *Unidad Ejecutora del Proyecto (UEPV* – The Project's Implementing Unit) is operating since November 1999. Both the implementation plan and the project updating plan are currently in the final phase, as well as the project's design system. The human resources development plan is being completed and studies to define CENAPH's organizational structure have already been initiated. A summary of program costs is given next.

Investment	**US$ million**	**%**
Engineering and Administration	23.7	28.5
Direct Costs	37.1	44.1
Pre-operative Expenses	23.3	27.7
TOTAL	**84.1**	**100**

The financing structure is as follows:

Origin of the Resources	Amount US$	%
Venezuelan Government	29.1	34.6
ADC Loan	55.0	65.4
TOTAL	84.1	100

The following table shows a summary of the disbursement schedule for the ADC loan and contributions by the Government of Venezuela.

ORIGIN OF THE RESOURCES	**1998**	**1999**	**2000**	**2001**	**2002**	**TOTAL**	**%**
ADC	5.5	15.0	24.5	10.0	-	55.0	65.4
MARN	1.4	2.9	6.3	6.9	11.6	29.1	34.6
TOTAL	**6.9**	**17.9**	**30.8**	**16.9**	**11.6**	**84.1**	**100**

Total loan term is 12 years including a 3-year period of grace.

Finally, information on project costs by item is included.

Item Description	TOTAL (US$ thousands)
Satellite systems, antennas and processors	7,934
Satellite communications	2,275
Surface observation systems	26,850
Development of forecast, engineering, and expense administration models	23,750
TOTAL	60,809
Taxes, Custom duties, interest	23,310
TOTAL PROJECT COST	84,119

5.3 PROJECTS UNDER IMPLEMENTATION (2/29/2000), CHART

PROJECTS	Loan Amount(1)	Undisbursed Amount	Disbursements					Closing Date
			1996	1997	1998	1999	2000	
ENVIRONMENT, SOCIAL SUSTAINABLE DEVELOPMENT								
1. Agriculture Extension	39.00	28.72	0.5	0.0	1.9	4.0	3.9	31/12/01
2. Inparques	55.00	36.24	1.2	0.4	2.0	5.4	9.7	6/30/00
3. Environmental Management	28.00	25.22	0	0	0	0.8	2.0	12/31/02
Subtotal	122.00	90.18	1.7	0.4	3.9	10.2	15.7	
POVERTY REDUCTION & ECONOMIC MANAGEMENT								
1. T. A. Loan	30.00	5.78	1.8	2.1	2.0	4.8	2.0	6/30/00
2. Judicial Infrastructure Development	30.00	14.57	0.5	2.7	3.1	6.8	1.8	6/30/01
3. Supreme Court Strengthening	4.70	1.41	0	0	0.2	1.4	1.7	12/31/00
4. P.S. Modernization & Decentralization	8.00	8.00	0	0	0	0	0	3/31/02
5. Public Expenditure Management	20.00	19.58	0	0	0	0	0	6/30/04
Subtotal	92.70	49.34	2.2	4.8	5.3	13.0	5.5	
FINANCE, PRIVATE SECTOR & INFRASTRUCTURE								
1. Highway Management	110.00	76.03	9.0	0.4	5.7	10.7	8.2	12/31/00
2. Urban Transport	80.00	35.20	3.9	4.4	7.6	16.7	8.6	12/30/00
3. Monagas Water	39.00	17.56	0	1.2	8.8	7.4	4.0	12/31/00
4. Caracas Slum Upgrading	60.70	60.09	0	0	0	0.	0.6	6/30/03
Subtotal	289.70	188.88	12.9	6.0	22.0	35.5	21.4	
HUMAN DEVELOPMENT								
1. Endemic Disease Control	74.00	5.65	11.7	9.0	19.5	20.3	1.7	6/30/00
2. Basic Education	69.40	27.14	0	2.6	4.1	28.4	4.6	4/30/00
3. Health Service Reform	54.00	19.78	0	3.5	5.5	18.0	7.3	12/31/00
Subtotal	197.40	52.57	11.7	15.1	29.1	66.7	13.6	
OTHER PROJECTS ALREADY CLOSED			15.5	32.8	79.7	53.7	0	
COUNTRY TOTAL	**701.8**	**381.0**	**44.0**	**59.1**	**140.1**	**179.0**	**56.0**	

(1) Net of Cancellations

5.4 OTHER GOVERNMENT AGENCIES

The Central Government uses several legal instruments and mechanisms to transfer funds and stimulate the implementation of works and projects in the regions, thereby promoting decentralization. However, the Nacional government aims its strategy at what it calls "*Deconcentrated Decentralization*", what means, **politically**: that regions be able to choose their own governors and establish links between regional authorities and communities; and **economically**, to create the conditions for a better spatial distribution of the population, 70% of which is located in the Coastal Northern-Central zone; this implies a severe distortion for service supply, since the country's huge hydrologic and natural resources are found in the south and middle of the country. Therefore, the National Government has defined three geographical focus centres for national economic development, the one with the highest priority being the Orinoco – Apure river centre.

In this study, it is considered important to emphasise the activities undertaken by two key organizations in regional development and the promotion of decentralization: *Fondo Intergubernamental para la Descentralizacion (FIDES* –Intergovernmental Fund for Decentralization*)* and the *Fondo de Inversion Social de Venezuela (FONVIS* – The Venezuelan Social Investment Fund*)*.

5.4.1 FIDES

FIDES is created to provide administrative and financial support for the decentralization process, addressing efficiency, interterritorial compensation and regional development criteria in the states and municipalities. Some of FIDES most important functions are to finance public services and productive investment projects in states and municipalities, as well as services characteristic of local life in agreement with the law applied to this organization. FIDES main finance sources are:

- The Nation's Annual Budget; a percentage between 15 and 20% to be approved by the National Assembly (*Asamblea Nacional*).

- Loans from international organizations, the implementation of which will be approved by such organizations.

- Income provided through Technical Co-operation programs for regional and local development, the administration of which is entrusted to FIDES by the National Executive.

- The resources assigned by the National Executive, the States and Municipalities, as well as contributions from private entities.

The resources assigned by FIDES to the states and municipalities to be used during 1999-2000 are given next.

BUDGETARY ASSIGNMENTS TO STATES AND MUNICIPALITIES TO BE IMPLEMENTED IN 1999 AND 2000

Federal Entities	Total Assignments	Estimate Environment (US $) (1)
Federal District	21,298,666	1,064,933
Amazonas	23,761,740	1,188,087
Anzoategui	18,043,038	902,152
Apure	18,765,706	938,285
Aragua	19,031,479	951,574
Barinas	16,566,377	828,319
Bolivar	28,641,282	1,432,064
Carabobo	23,281,211	1,164,061
Cojedes	16,847,868	842,393
Delta Amacuro	21,366,418	1,068,321
Guarico	15,969,372	798,469
Lara	21,953,940	1,097,697
Merida	16,378,523	818,926
Miranda	26,830,772	1,341,539
Monagas	14,207,160	710,358
Nueva Esparta	12,810,793	640,540
Portuguesa	21,842,181	1,092,109
Sucre	16,853,539	842,677
Tachira	17,696,283	884,814
Trujillo	15,923,269	796,163
Vargas	11,364,486	568,224
Yaracuy	15,301,552	765,078
Zulia	35,566,277	1,778,314
Total	**450,301,933**	**22,515,097**

(1) 5% total

MAP OF INVESTMENT NEEDS IN VENEZUELA

According to the information provided by FIDES, the Map of Investment Needs (*Mapa de Necesidades*) in Venezuela is the principal product of the project: ***Sistema de Informacion de Necesidades de Inversion en Venezuela***, (**Information System of Investment Needs in Venezuela**) broken down by states and municipalities, which has been implemented by FIDES with financing from the *Agencia Española de Cooperacion (AECI* – Spanish Co-operation Agency) through *CORDIPLAN* and is to provide technical support for the decentralization process.

The Map contains information and quantification of service deficits for each selected sector, broken down by states and municipalities and aimed at supporting government offices, mayor offices and financing organizations in their efforts to assign investment priorities.

For more information on the subject, see the FIDES web page WWW.platino.gov.ve/fides

5.4.2 FONVIS

FONVIS is a foundation at the service of the Ministry of the Family created in 1990 to have a quick, innovative and effective instrument to face poverty, consolidate the modernization of the public sector and contribute to the State's decentralization process.

FONVIS has the following objectives:

- Capture and generate national and international financial, technological and information resources.
- Transfer resources to support basic services supply projects.
- Strengthen decentralised public entities to increase their management capability and efficiency.
- Support the initiatives of the organized civil community.
- Promote the association of private, public and community resources and efforts.

FONVIS has three basic programs: *PROINSOL*, *PAIS* and *PROINDES*

The *Programa de Inversion Social Local (PROINSOL* – The Local Social Investment Program), implemented by FONVIS with financing by the Interamerican Development Bank, is a mechanism to benefit and reinforce social investment by regional and local governments through the support of the decentralization of basic services, the promotion of a project culture and institutional strengthening. Program cost is US$80 million.

PROINSOL has three auxiliary programs:

- **The Investment Auxiliary Program**: Aimed at financing projects managed by state and municipal governments for the construction, improvement and equipment of basic services in education, health, environmental sanitation (water supply, sewerage and drainage), urban road networks and community electrification and equipment.

- **The Institutional Strengthening Auxiliary Program**: Aimed at financing technical assistance activities and the training of regional and municipal governments to strengthen their management capability in scheduling, evaluation, hiring and operation of social services and basic urban infrastructure.

- **The Pre-Investment Program**: General and area studies to prepare the second stage of PROINSOL, based on the benefits and impact levels generated by the program.

The *Programa de Apoyo a Iniciativas and Gestion de las Organizaciones de la Sociedad Civil (PAIS* – Support Program for Initiative and Management by Civil Community Organizations*)*, is a strategy of the Venezuelan State to provide attention to population sectors with a high degree of unmet basic needs

and excluded from the national social welfare network, through the participation of civil community organizations, the private sector and the Venezuela State. The cost is US$20 million and the administrative strategy for the financial management of non-reimbursable transfer agreements for each project is a Trust made up with IDB resources and contributions by the Venezuelan State, the private sector and civil organizations.

PAIS supports projects for education, health, environmental sanitation, food and family.

5.5 RECONSTRUCTION OF AREAS DAMAGED BY THE DECEMBER 1999 FLOODING

The Document of the *Comision Economica para America Latina y el Caribe (CEPAL - ECLA,* Economic Commission for Latin America*)* was delivered to the Government of Venezuela during the first quarter of 2000. The Government has not yet made public an action plan to address the problems identified in the study. The international financial institutions have guaranteed funds for the reconstruction process. The Government has also reviewed *Ley Paraguas 2000 (www.ocepre.gov.ve)*, to address the problems caused by flooding.

CEPAL estimated that damage from the December 1999 disaster reached US$3,2 billion nationally (3.3% of the GDP in 1999) and US$1.7 billion in Vargas state. The document took into account damage to housing, city planning, education, transportation and telecommunications, as well as to water and sanitation services. The damage by greatest impact sectors is listed next:

Sector	**US$ MM**
Transportation	782
Housing	506
Trade	427
Tourism	297
Water and sanitation	243
Debris demolition, cleaning and disposal	216
Energy	161
Agricultural, livestock and fishing	144
Cultural patrimony	80
Education	69
Environment	69
Urban infrastructure	68
Health	61
Emergency attention	51
Manufacturing industry	53
Total	**3 227**

The greatest damage to land transportation and road networks is mainly represented by 500 km of roads that were covered or broken and 1,200 m of destroyed bridges.

Housing: Of a total of 1,369,310 housing units in the Federal District and Falcon, Miranda, Tachira, Vargas and Yaracuy states, 16,730 were affected; of these, over 8,000 are in Vargas.

Tourism: Of 2,750 hotel rooms in Vargas state, half of them totally lost their furniture.

The Interamerican Development Bank (IDB) is planning to make loans to Venezuela for approximately US$500 million. The granted loans will be used for reconstruction projects of the roadways destroyed by the flooding and landslides that affected the *Litoral Central* (the Central Coastline), as well as other roads damaged by the heavy rains. (El Universal newspaper, 17-2, Iglesias visita a Venezuela).

The plans will also be used in projects related to water supply and water sources sanitation, as this is a priority. So far, US $150 million out of a total of US$500 million have been have been placed at the disposal of the Government to be immediately used in the described projects.

The *Autoridad Unica de Area para el Estado Vargas* (the Single Authority for Vargas state) is co-ordinating the formulation of a Master Plan for Territorial Development in the Central Coastline. The plan includes the recovery and improvement of the quality of life, redefinition of urban variables and transparency in the use of resources. Even though this Master Plan is not completely defined, the strongest proposals aim at the possibility of recovering the recreational character and stress the tourist potential.

By middle February 2000, 90 % of the Caracas – La Guaira highway had been recovered and progress had been made in restructuring the Carayaca road. On the same date, it was estimated that the provisional asphalt paving of the Macuto – Los Caracas road and 70 % of the bridges would be completed in June. Total rehabilitation of water supply was anticipated between April and October 2000 in less affected areas. Completion of interception sewers and pumping stations was anticipated for August. Electricity would be restored by 85 % in April.

Finally, on 21/3/2000 the President declared the initiation of Stage III of the Master Plan for the Reconstruction of Vargas with assignment of the following resources:

MARN, US $.181.8 billion
Ministry of Infrastructure, US $.809.1 billion
Hidrocapital, US $.98.5 billion
Vargas Single Authority, US $ 14.7 billion
Creation of a Fund to build 1294 housing units, US $.30.3 billion.

BIBLIOGRAPHY

- Crecimiento Económico y Equidad. Propuestas para Reactivar la Economía de Manera Sostenida. Documentos de la Federación de Cámaras y Asociaciones de Comercio y Producción de Venezuela. FEDECAMARAS. Aprobado por el Directorio el 10-8-99.
- El Comienzo del Renacer. Los Cien Días de Gobierno del Presidente Chávez. Oficina Central de Información.
- Inversión Extranjera Directa por País en US$. DIEX, octubre 99.
- Oportunidades de Inversión en Turismo. Consejo Nacional de Promoción de Inversiones. CONAPRI. Caracas, febrero de 1999.
- Oportunidades de Inversión en Telecomunicaciones. Consejo nacional de Promoción de Inversiones. CONAPRI. Caracas, febrero de 1999.
- Mapa de Necesidades de Inversión en Venezuela. Fondo de Inversión Social. FONVIS.
- Oportunidades de Inversión en Hidrocarburos y Petroquímica. Consejo Nacional de Promoción de Inversiones. CONAPRI. Caracas, febrero de 1999.
- Indicadores Económicos. Documentos de la Unidad de Análisis Económico de FEDECAMARAS. Octubre 1999.
- Gaceta Oficial No. 5.394, del 25 de octubre de 1999. DECRETO – LEY SOBRE CONCESIONES DE OBRAS PÚBLICAS Y SERVICIOS PÚBLICOS NACIONALES.
- Gaceta Oficial No. 5.386 DECRETO – LEY DE REFORMA A LA LEY DE LICITACIONES.
- Documentos del Fondo Intergubernamental para la Descentralización. FIDES.
- Página WEB FIDES.
- PDVSA. Plan de Negocios 2000-2009
- PDVSA. Publicaciones varias
- Plan Estratégico Industrial. Ministerio de la Producción y el Comercio. Enero del año 2000

- Proyecto de Ley de Presupuesto año 2000. Política Presupuestaria. Ministerio de la Producción y el Comercio.
- Proyecto de Ley de Presupuesto año 2000. Política Presupuestaria. Ministerio del Ambiente y de los Recursos Naturales.
- Proyecto de Ley de Presupuesto año 2000. Política Presupuestaria. Ministerio de Infraestructura.
- Decreto con Rango y Fuerza de Ley que Autoriza al Ejecutivo Nacional para la Contratación y Ejecución de Operaciones de Crédito Público Durante el Ejercicio Fiscal 1999.
- Programa Económico de Transición 1999 – 2000. Oficina Central de Información. OCI.
- Recursos para el Desarrollo. Fondo de Inversión Social de Venezuela. FONVIS. 11-1999.
- Material de Apoyo: prensa nacional. Economía Hoy. El Universal. El Nacional.
- Estadísticas 1988. Cámara Venezolana de la Industria Eléctrica. CAVEINEL
- La Modernización del Sector Agua Potable y Saneamiento C.A. Hidrológica Venezolana. HIIDROVEN, 1988.
- Informe Quinquenal de Gestión 1994 – 1998. HIDROVEN.
- Plan Regional de Inversiones en Ambiente y Salud. Resumen Ejecutivo 1997.
- Otros: Consultas con empresarios y dirigentes empresariales. (CONINDUSTRIA. FEDECAMARAS).

SCHEDULE A

MARN - MINISTRY & DIRECTOR'S

MARCH 2000

Cargo	Nombre	Ubicación	Teléfono	Fax
DESPACHO DEL MINISTRO				
Ministro	Dr. Jesús Arnaldo Pérez	Piso 25 Torre Sur	481 22 09	483 11 48
Secretaria Privada	Dra. Carmen Suárez	Piso 25 Torre Sur	484 10 54	
Vice- Ministro	Ing. Ricaurte Leonett	Piso 25 Torre Sur	480 12 85	483 17 49
Director Adjunto	Soc. Noris Brito	Piso 25 Torre Sur	408 50 36	
DIRECCIÓN DEL DESPACHO				
Secretario general	Dra. Isabel Becerra de Mendez	Piso 25 Torre Sur	483 31 65	481 50 36
Adjunto	Abog. Geraldina Alvarez	Piso 25 Torre Sur	408 10 30	
CONSULTORIA JURIDICA				
Consultor Jurídico	Abog. José de Jesús Figuera	Piso 24 Torre Sur	481 72 28	484 57 42
OFICINA DE CONTRALORÍA INTERNA				
Contralor	Ing. Claribel Divo Canepa	Piso 16 Torre Sur	408 13 35	483 36 33
OFICINA SECTORIAL DE PLANIFICACIÓN Y PRESUPUESTO				
Director General Sectorial	Econ. Arturo Rojas	Piso 30 Torre Sur	482 62 96	483 91 12
Director de Promoción, Coordinación y Control de Proyectos de Inversión	Vacante			
OFICINA SECTORIAL DE GESTIÓN Y COOPERACIÓN INTERNACIONAL				
Director General Sectorial	Lic. María Jacqueline Otea	Piso 18 Torre Sur	481 50 26	483 24 45
Director de Cooperación Técnica	Vacante			
Director de gestión Internacional	Lic. Liliana Villalobos	Piso 18 Torre Sur	408 12 38	481 14 73
OFICINA SECTORIAL DE ADMINISTRACIÓN Y SERVICIOS				
Director General Sectorial	Lic. Máximo Altuve	Piso 20 Torre Sur	481 02 71	483 30 73
OFICINA SECTORIAL DE RECURSOS HUMANOS				
Director General Sectorial	Lic Freddy Lamas		481 73 33	
OFICINA NACIONAL DE DIVERSIDAD BIOLÓGICA				
Director General	Lic. Eduardo Szeplaki	Piso 6 Torre Sur	481 19 84	
OFICINA PARA EL DESARROLLO SOSTENIBLE EN EL EJE APURE - ORINOCO				
Director General Sectorial	Ing. Juan José García	Piso 8 Torre Sur	483 66 95	481 74 16
DIRECCION GENERAL DE PLANIFICACION Y ORDENACION DEL AMBIENTE				
Director General Sectorial	Geog. Miguel Luna	Piso 10 Torre Sur	481 32 73	483 61 18
DIRECCION GENERAL DE VIGILANCIA Y CONTROL AMBIENTAL				
Director General Sectorial	Abog. Luisa Durán	Piso 19 Torre Sur	481 58 92	483 31 90
DIRECCION GENERAL DE CALIDAD AMBIENTAL				
Director General Sectorial	Lic. Gregori Colomine	Piso 28 Torre Sur	481 02 36	481 02 36

DIRECCION GENERAL DE EQUIPAMIENTO AMBIENTAL				
Director General Sectorial	Lic. Gustavo Aristiuño	Piso 15 Torre Sur	481 15 28	483 28 11
DIRECCION GENERAL DE EDUCACION AMBIENTAL Y PARTICIPACION COMUNITARIA				
Director General	Lic. Argelia Flores	Piso 18 Torre Sur	542 14 52	
DIRECCION GENERAL DE CUENCAS HIDROGRÁFICAS				
Director General	Geog. Haydee Briceño	Piso 5 Torre Sur	483 70 62	483 70 62
SERVICIOS AMBIENTALES DEL MARN (SAMARN)				
Director General	Cap. De Nav. William Moreno	Piso 5 Torre Sur	481 77 69	483 45 36
SERVICIOS AUTONOMO DE GEOGRAFIA Y CARTOGRAFIA NACIONAL (SAGECAN)				
Director General	Coronel (Ej) Romer Mena N.	Piso 2 Edificio Camejo	542 03 74	542 03 74
SERVICIOS AUTONOMO DEL RECURSO FORESTAL				
Director General	Ing. Orlando Ortegano	Piso 22 Torre Sur	481 43 45	483 91 58
SERVICIOS AUTONOMO DE FAUNA				
Director General Sectorial	Lic. Mirna Quero	Piso 6 Torre Sur	481 27 07	484 60 45
AUTORIDAD UNICA DE AREA DE LA CUENCA DEL RIO TUY				
Director General	Ing. Orlando Ortegano	San Martín	451 48 84	451 91 19
AUTORIDAD UNICA DE AREA DEL LAGO DE VALENCIA				
Director General Sectorial	Lic. Rosa Rodenas	Valencia	041 59 24 69	043 63 34 33
AUTORIDAD UNICA DE AREA ARCHIPIELAGO LOS ROQUES				
Director General	Ing. Orlando Hernández	Piso 11 Torre Sur	482 33 74	408 11 67
DIRECCION ESTADAL AMBIENTAL DEL ESTADO AMAZONAS				
Director Estadal	Ing. Diógenes Palau	Puerto Ayacucho	048 21 22 93	048 21 06 47
DIRECCION ESTADAL AMBIENTAL DEL ESTADO ANZOATEGUI				
Director Estadal	Ing. Cruz del Valle Rodriguez	Barcelona	081 76 07 09	081 76 06 47
DIRECCION ESTADAL AMBIENTAL DEL ESTADO APURE (EXCEPTO EL MUNICIPIO PÁEZ)				
Director Estadal	Ing. Roger Aponte	San Fernando de Apure	047 41 10 64	047 41 43 54
DIRECCION ESTADAL AMBIENTAL DEL ESTADO BARINAS				
Director Estadal	Ing. José Molinar	Barinas	073 33 42 97	
DIRECCION ESTADAL AMBIENTAL DEL ESTADO BOLÍVAR				
Director Estadal	Lic. Florencia Cordero	Ciudad Bolívar	085 31 34 01	085 31 33 21
DIRECCION ESTADAL AMBIENTAL DEL ESTADOCOJEDES				
Director Estadal	Ing. Nerio Escobar	Sn Carlos	058 33 24 37	058 33 36 38
DIRECCION ESTADAL AMBIENTAL DEL ESTADO FALCON				

Director Estadal	Dr Freddys Eizaga	Coro	068 51 57 79	068 51 51 37
DIRECCION ESTADAL AMBIENTAL DEL ESTADO GUARICO				
Director Estadal	Ing. Miguel Reyes	Calabozo	046 71 42 40	046 71 61 92
DIRECCION ESTADAL AMBIENTAL DEL ESTADO LARA				
Director Estadal	Ing. Augusto Bastidas	Barquisimeto	051 54 12 52	051 52 96 07
DIRECCION ESTADAL AMBIENTAL DEL ESTADO MERIDA				
Director Estadal	Geog. Marisol Rodríguez	Mérida	074 52 35 14	074 52 96 07
DIRECCION ESTADAL AMBIENTAL DEL ESTADO MONAGAS				
Director Estadal	Ing. Amadís Aristimuño	Maturín	091 43 05 21	091 43 13 57
DIRECCION ESTADAL AMBIENTAL DEL ESTADO NUEVA ESPARTA				
Director Estadal	Biol. Sergio García	La Asunción	095 42 24 47	095 42 08 95
DIRECCION ESTADAL AMBIENTAL DEL ESTADO PORTUGUESA				
Director Estadal	Geog. Antonio graterol	Guanare	057 51 66 73	
DIRECCION ESTADAL AMBIENTAL DEL ESTADO SUCRE				
Director Estadal	Ing. Marlene Patiño	Cumaná	093 51 42 23	093 51 41 48
DIRECCION ESTADAL AMBIENTAL DEL ESTADO SECTOR SUROESTE (TACHIRA Y M. PAEZ, APURE)				
Director Estadal	Ing. Arnoldo Uribe	San Cristóbal	076 47 83 28	076 47 36 55
DIRECCION ESTADAL AMBIENTAL DEL ESTADO TRUJILLO				
Director Estadal	Ing. Félix Quevedo	Trujillo	072 32 814	072 31 955
DIRECCION ESTADAL AMBIENTAL DEL ESTADO YARACUY				
Director Estadal	Ing. Aura Albarrán	San Felipe	054 31 73 87	054 31 69 42
DIRECCION ESTADAL AMBIENTAL DEL ESTADO ZULIA				
Director Estadal	Luís Lossada	Maracaibo	061 61 49 59	061 61 32 46
DIRECCION ESTADAL AMBIENTAL DEL ESTADO DELTA AMACURO				
Director Estadal	Lic. Lesbia Rodríguez	Tucupita	087 21 31 70	087 21 18 53
INSTITUTO NACIONAL DE PARQUES (INPARQUES)				
Presidente	Ing. Eddy Cordova	Caracas	239 40 73	239 26 98
INSTITUTO PARA EL CONTROL Y LA CONSERVACION DE LA CUENCA DEL LAGO DE MARACAIBO (ICLAM)				
Presidente	Ing. Jesús Manucci	Maracaibo	061 64 72 66	061 64 72 34
INSTITUTO PARA LA CONSERVACION DEL LAGO DE VALENCIA (INCOLAGO)				
Presidente	Ing. Pedro Escarrá	Valencia	045 71 37 73	045 71 73 95

SCHEDULE B

COMPANIES REGISTERED AT MARN

MARCH 2000

ENVIROMENTAL LABORATORIES

LABORATORY	ESPECIALITY			CONTACT PERSON	LOCATION	TEL/FAX
	WATER	AIR	WASTE			
ACTIVIDADES AMBIENTALES ATMOSFÉRICAS, C.A., 3A		X		José Luis La Fuente	Caracas	(02) 963 16 60 (02) 963 31 27 (Fax)
ENVIROMENTAL ASSESMENT ACASIA, C.A.		X		Ing. Héctor Mendoza	San Antonio de Los Altos. Edo. Miranda	(02) 373 29 81 016 607 12 94
COMMISSIONING, ASISTENCIA TÉCNICA INTERNACIONAL		X		Ing. María García	Caracas	(02) 234 54 06 014 31 01 05
INTEVEP		X	X	Ing. Aldo Anselmi	Los Teques. Edo. Miranda	(02) 908 69 29 (02) 908 78 01 (Fax)
HIDROLAB TORO CONSULTORES, C.A.	X	X	X	Ing. Miguel Mura	Valencia. Edo. Carabobo	(041) 31 28 74 (Fax) (041) 31 26 30
LABORATORIO TECNOLOGICO DEL AMBIENTE "LABTA"		X		Lic. Leyda Escalona	Valencia. Edo. Carabobo	(041) 57 92 38
S.O.S. AMBIENTAL, C.A.		X		Ing. Antonio Solís	Valencia. Edo. Carabobo	(041) 22 01 55 (041) 24 43 50 (Fax)
GREEN WISDOM, C.A.		X		Ing. José Ortega	Guacara. Edo. Carabobo	(045) 81 30 81 (Fax) 014 941 80 75
FUNDACION INSTITUTO ZULIANO DE INVESTIGACIONES TECNOLOGICAS "INZIT - CICASI"		X	X	MSC. Soraya Peinado	Maracaibo. Edo. Zulia	(061) 91 37 69 (061) 91 04 78 (Fax)
GRUPO AMBIENTAL DE SERVICIO TECNOLOGICO, C.A.		X		Ing. Yoe Quintero	Maracaibo. Edo. Zulia	(072) 72 16 30
LABORATORIO TRUJILLO, C.A.	X	X		Lic. Luís Méndez	Trujillo. Edo. Trujillo	(072) 72 16 30
C.V.G. SIDERURGICA DEL ORINOCO "SIDOR"		X		Ing. Ligia Urich	Puerto Ordaz. Edo. Bolívar	(086) 90 69 14/15 (086) 90 69 16 (Fax)
PLANTAS ACUÁTICAS U.C.V.			X	Ing. Justiniano Velásquez	Caracas	(02) 61 98 11 al 30
UNIVERSIDAD SIMON BOLIVAR			X	Alfredo Sánchez	Sartenejas. Edo. Miranda	(02) 907 35 43 (02) 93 09 81
TORO Y ASOCIADOS	X		X	Frank del Gallego	Valencia. Edo. Carabobo	(041) 33 75 36 (041) 71 61 41
INSTITUTO DE INGENIERIA			X	Marhilda Abreu	Sartenejas. Edo. Miranda	(02) 962 10 97 (02) 962 11 24
CORE LABORATORIO	X		X	Neima Gómez	Maracaibo. Edo. Zulia	(061) 41 50 20 (061) 57 86 84 (Fax)

MANTENIMIENTO ELECTRICO COSTEL			X	Quim. Paulina Zuñiga	Valencia. Edo. Carabobo	(041) 34 91 92 (041) 33 61 27
TRAC – BM LABORATORIOS AMBIENTALES	X		X	Ing. Manuel Correa	Caracas	(02) 239 64 27
SERVICIO VENEZOLANO DE TRANSFORMADORES C.A.			X	Heiber Darío	Guatire. Edo. Miranda	(02) 762 17 70 (02) 762 18 04
LABORATORY	**ESPECIALITY**			**CONTACT PERSON**	**LOCATION**	**TEL/FAX**
	WATER	**AIR**	**WASTE**			
LABORATORIO ENVIROTEC	X		X	Virginia Calvo	Caracas	(02) 235 27 14
OTECNAGUA	X			Ing. Luisa Arismendi	Caracas	(02) 693 67 18 014 204 06 93
INCOQUIM	X			Lic. José Contreras	Caracas	(02) 235 31 55 (02) 235 31 55 (Fax)
BROLAB, S.R.L.	X			Dra. Olgamar Franceschi	Caracas	(02) 71 19 40 (02) 762 29 12 (Fax)
AGME S.A.	X			Dra. Numidia Corona	Caracas	(02) 262 02 15 (02) 262 22 63
LABORATORIOS DE SERVICIOS AMBIENTALES (LASERIN)	X			Ing. Julio castro	Guarenas. Edo. Miranda	(02) 344 81 89 014 923 63 54
INGENIERIA AMBIENTAL AQUA TERRA AERE ATA, C.A.	X			Ing. Juan Salas	Caracas	(02) 662 59 02 (02) 662 50 04 (Fax)
MICRO BAG E VENEZUELA, C.A.	X			Lic. Gabriela Trebbau	Caracas	(02) 237 90 09
CENPROACA, S.R.L.	X			Lic. Orlando Lárez	Maracay. Edo. Aragua	(043) 83 06 15 (043) 83 46 56 (Fax)
TECNI ALIMENTOS, C.A.	X			Dra. Carín Soulavy	Turmero. Edo. Aragua	(043) 69 04 40 (043) 69 09 55 (Fax)
DISEÑOS AMBIENTALES (DISA)	X			Ing. Rafael Dautant	Valencia. Edo. Carabobo	(041) 42 14 35 (041) 42 80 28 (Fax)
ECOLOGICO ORDAZ	X			Lic. César Ordaz	Valencia. Edo. Carabobo	(041) 21 78 36 (041) 24 43 50 (Fax)
LABORATORIO TECNO AMBIENTAL, C.A.	X			Lic. Américo López	Valencia. Edo. Carabobo	(041) 66 23 93 (014) 49 36 05
TECOTECNIC	X			Ing. Manuel Pérez	Valencia. Edo. Carabobo	(041) 71 65 01 (014) 405 98 74

CIPRAM, C.A. LABORATORIO INDUSTRIAL	X			Ing. América de Décima	Barquisimeto. Edo. Lara	(051) 69 07 87 (051) 69 09 15(Fax)
SERVIAMBCA, CORO	X			Lic. José Prieto	Punto Fijo. Edo. Falcón	(069) 47 25 79 (069) 4661 30 (Fax)
OCCILAB	X			Lic. Lucía Caballaro	Maracaibo. Edo. Zulia	(061) 97 79 57 (061) 98 70 98
HIDROIL S.R.L.	X			Lic. Aníbal Gutiérrez	Maturín. Edo. Monagas	(092) 31 15 31
LABTEAM, S.A.	X			Ing. Pedro Brito	Maturín. Edo. Monagas	(091) 41 24 97 (014) 201 98 40
INTERLAB. DIVISION DE CONTROL AMBIENTAL	X			Lic. Rosalba Ferrer	Lecherías. E. Anzoátegui	(081) 86 01 58 (081) 86 38 56 (Fax)

ENVIROMENTAL CONSULTING

COMPANY	CONTACT PERSON	LOCATION	TEL/FAX
CONSULTORES TECNICOS INTEGRALES, CTI	Oscar González	Caracas	(02) 285 51 60 (02) 286 21 92 (Fax)
AMBIOCONSULT C.A.	Aníbal Alarcón	Caracas	(02) 204 32 35 (02) 204 32 37 (Fax)
PROYECTOS CONNATURA C A.	Federico Moya	Caracas	(02) 266 07 72 (02) 266 79 59
FUNINDES – USB	Andrés Tremante	Caracas	(02) 96 66 48 (02) 962 16 95 (Fax)
CONSULTORES AMBIENTALES OTEC S.A.	Maritza de Caldentey	Caracas	(02) 242 05 33 (02) 242 55 63 (Fax)
HIDROMET INGENIEROS CONSULTORES S.A.	Ramón Guilarte	Caracas	(02) 284 60 10 (02) 284 49 87 (Fax)
FUNTEC	Arnoldo Uribe	San Cristóbal. Edo. Táchira	(076) 43 14 01
AMBIOMET CONSULTORES AMBIENTALES C.A.	Gonzalo Peña	Caracas	(02) 284 60 10 (02) 285 77 01 (Fax)
PROCONSULT C.A.	Beatriz Pineda	Caracas	(02) 953 13 95 (02) 953 59 18 (Fax)
ECON C.A.	María Díaz	Caracas	(02) 284 05 13 (02) 563 37 74 (Fax)
CONTROLES AMBIENTALES TENORIO C.A.	Carlos Tenorio	Puerto La Cruz. Edo. Anzoátegui	(081) 86 54 71
HIDROIMPACTO C.A.	José Manduca	Caracas	(02) 862 66 31 (02) 862 66 32
ECOPROYECTOS	Sonia Cosme	Caracas	(02) 237 58 31 (02) 232 28 83 (Fax)
EFRAIN CARDONA Y ASOCIADOS C.A.	Efrain Cardona	Caracas	(02) 752 09 46 (02) 752 81 13 (Fax)
INGENIERIA CAURA S.A.	Eduardo Buroz	Caracas	(02) 951 00 36 (02) 951 03 78 (Fax)
AMBIENTE CONSULTORES GUAYANA C.A.	Felix Leal	Ciudad Bolívar. Edo. Bolívar	(085) 260 63 (085) 296 78

JANTESA S.A.	Pedro Blesa	Caracas	(02) 285 12 11 ext. 232 - 419
NIVA	Ghassean Dagher	Caracas	(02) 39 41 89
FUNDAGEOMINAS	José Herrero	Ciudad Bolívar. Edo. Bolívar	(085) 51 39 23
TECMIN	Beverley de Yánez	Puerto Ordaz. Edo. Bolívar	(086) 61 90 12 (086) 62 74 33 (Fax)
NUEVOS HORIZONTES C.A.	Luz Soto	Guanare. Edo. Portuguesa	(057) 51 59 81 (057) 53 02 22
SERVIGEOMIN	Zonia de Fernández	Caracas	(02) 507 58 11 al 13 (02) 507 58 07
PROEGEO C.A.	Elia Gómez	Caracas	(02) 93 80 34 (02) 93 63 79 (Fax)
REIF CONSULTORES ASOCIADOS C.A.	Benjamín Reif	Caracas	(02) 953 46 40 (02) 953 13 20 (Fax)
SERFOREYCO	Sady Silva	Ciudad Bolívar. Edo. Bolívar	(085) 449 62
PALMAVEN S.A.	Alfredo Gruber	Caracas	(02) 905 12 43 (02) 905 12 00
GEOHIDRA CONSULTORES C.A.	Juan Rodríguez	Caracas	(02) 662 59 02 (02) 662 50 04 (Fax)
HIDROAMBIENTE CONSULTORIA E INGENIERIA AMBIENTAL C.A.	Sonya de Jugo	Caracas	(02) 979 87 42 (02) 959 79 97
NATURA S.A.	Frankz Dozsa	Caracas	(02) 92 83 11 (02) 91 52 32 (Fax)
IMPROFESA S.R.L.	Alberto Damas	Caracas	(02) 571 89 54 (02) 573 65 08
E.G. INGENIERÍA DE CONSULTA	Eutimio González	Ciudad Bolívar. Edo. Bolívar	(088) 21 30 94 (088) 21 00 54
ABINCA C.A.	José Gil	Barquisimeto. Edo. Lara	(051) 31 18 20
EIA ESTUDIOS INTEGRALES DEL AMBIENTE	Jesús Ramírez	Caracas	(02) 204 30 65
BENTHOS BUCEO PROFESIONAL S.R.L.	William Feragotto	Caracas	(02) 472 53 78 (02) 472 85 22 (Fax)
NOUEL INGENIEROS CONSULTORES C.A.	Luís Nouel	Caracas	(02) 979 81 11 (02) 979 54 27 (Fax)

ITA TECNICAS AMBIENTALES	Aimara Soto	Caracas	(02) 266 60 83 (02) 263 72 06 (Fax)
INGENIEROS CONSULTORES O.S., C.A.	Gabriel Oñate	Cumaná. Edo. Sucre	(093) 32 46 70
R.S.A. ECOSISTEMAS C.A.	Manuel Correa	Caracas	(02) 239 64 27 (02) 237 29 17 (Fax)

COMMISSIONING A.T.I., C.A.	María García	Caracas	(02) 35 90 97 (02) 35 89 16
ESCAM	Gustavo Parra	Caracas	(02) 239 81 64 (02) 239 12 90
PUNTOMEGA S.A.	Alberto González	Maracaibo. Edo. Zulia	(061) 55 68 52
SYPCA	Reinaldo Rosal	Puerto Ordaz. Edo. Bolívar	52 21 84 52 47 20
CONSULTORES AMBIENTALES 3C, C.A.	Beatriz Olivo Ch.	Caracas	(02) 751 82 20 (02) 751 48 24 (02) 751 48 57 (Fax)
INVERSIONES OMRI-TAS CONSULTORES AMBIENTALES C.A.	Evaristo Meza	Caracas	(02) 681 34 44
INGENIEROS CONSULTORES AMBIENTALES	Eduardo González	Edo. Falcón	51 94 28
TECNOAMBIENTAL C.A.	Luís Toledo	Puerto Ordaz. Edo. Bolívar	94 32 81 94 05 97
REISANCA	Milagro Santos	Maracaibo. Edo. Zulia	016 61 74 29
CORSA, C.A.	Ocho Oswaldo	Caracas	(02) 266 00 72 (02) 266 79 59 (Fax)
PROIAMCA	Luís Sánchez	Barcelona. Edo. Anzoátegui	014 80 08 47
CONSULTORES INFORECO C.A.	Omar Carrero	Caracas	(02) 481 69 60
TECNICA AMBIENTAL S.C.	Evelyn Grünwald	Caracas	(02) 952 50 78
AMBIENTOPLAN	Jacqueline Suárez	Caracas	(02) 54 50 95 (02) 541 26 92
ENSR VENEZUELA, S.A.	Diana Gonzalo	Caracas	(02) 91 79 22 (02) 91 71 12
INVERSIONES R.H.	Roger Herrera	Coro. Edo. Falcón	(068) 51 82 73 (068) 51 37 54
PARECA	Jesús Rodríguez	Ciudad Guayana. Edo. Bolívar	(086) 61 55 19

ECOLOGY AND ENVIRONMENT, INC	Arnoldo Gabaldón	Caracas	(02) 237 55 19 (02) 237 59 03
TIERRA XXI CONSULTORES AMBIENTALES	Dinorah Guerra	Caracas	014 21 98 92
ECOSUCA	Jerson Sucre	Barcelona. Ed. Anzoátegui	(081) 77 98 06
TECNOCONSULT AMBIENTAL S.A.	Luís Luciani	Caracas	(02) 508 22 23 (02) 575 10 32 (Fax)
ECOTONO XXI	Francisco Sapene	Caracas	(02) 951 05 10

PLAGUE CONTROL C.A.	Napoleón Carta	Caracas	(02) 482 79 36 014 23 86 06
FUNDACION DE INVESTIGACION Y ASESORIA TECNICA	Albis Ferrer	Cumaná. Edo. Sucre	672 15 54
GLOBAL UNIVERSAL, C.A.	Octavio Fonseca	Valencia. Edo. Carabobo	(031) 449 68 (041) 21 03 05
CONSULTORES C.H.B., C.A.	Otto Chourio	Caracas	(02) 576 09 54
INGENIERIA A Y S C.A.	Juan Aceituno	Caracas	xxx
INGENIERIA INTEGRAL GUAYANA C.A.	José Enot	Ciudad Bolívar. Edo. Bolívar	(085) 21 184 016 85 19 14
ECO-AMBIENTE	Carlos Galea	Ciudad Bolívar. Edo. Bolívar	(085) 23 792
IVIC	Miguel Laufer	Caracas	(02) 501 11 11 (02) 501 11 22
AGROINGENIERIA CELAGRO 33, C.A.	Rafael Solorzano	Caucagua. Edo. Miranda	(034) 41 130 (034) 62 06 50
FUNDACION LA SALLE DE CIENCIAS NATURALES	Pablo Mandanzen	Caracas	(02) 782 87 11
AUYANTEPUY INGENIEROS CONSULTORES	José Salazar	Barcelona. Ed. Anzoátegui	(081) 77 71 14
SEPRECA	Luís Cordova	Guanare. Edo. Portuguesa	51 74 40 014 57 04 51
ACRE, C.A.	José Bustos	Maracaibo. Edo. Zulia	(061) 42 01 44 (061) 42 05 60
PROYECTOS AGROPECUARIOS Y PESQUEROS, C.A.	Pablo Almeida	Caracas	(02) 256 36 75
CONSULTORA GALILEO C.A.	Cilino González	Caracas	(02) 979 02 91
ENVIROLAB MEDINA CONSULTORES, C.A.	Omaira de Medina	El Tigrito. Edo. Anzoátegui	(083) 41 27 08
CATAV	Omar Escalona	Valencia. Edo. Carabobo	(041) 42 43 97
FUNDACION INSTITUTO DE INGENIERIA	Gustavo Ruiz	Caracas	(02) 942 00 25 (02) 942 00 45

EPROANCA	Luisa de Cavallo	Calabozo. Edo. Guárico	(046) 71 25 79
INZIT CICASI	Soraya Peinado	Maracaibo. Edo. Zulia	(061) 91 37 69 (061) 92 21 24 (Fax)
AMBISEARCH, C.A.	Leonor Montilva	Caracas	(02) 21 42 40 (02) 21 56 07
AMBIENTE 200, C.A.	Juan Rodríguez	Maturín. Edo. Monagas	(091) 51 20 94 (02) 793 04 93
M.G.A. INGENIEROS CIVILES C.A.	Rafael Guevara	Caracas	(02) 953 29 32 (02) 953 16 45

INVERSIONES YURUAN, S.R.L.	Omar Pérez	Tumeremo. Edo. Bolívar	(088) 71 03 36 (085) 44 609
CONSULTORES EN AMBIENTE, MINERIA, INGENIERIA Y CARTOGRAFIA	Antonio Marcano	Barquisimeto. Edo. Lara	31 80 07 51 15 11
OTSEFOR	Freddy Artigas	Valera. Edo. Trujillo	(071) 21 10 94
BROWN & ROOT/HALLIBURTON DE VENEZUELA, S.A.	Manuel Romero	Caracas	(02) 979 58 73
INVESTIGACIONES AMBIENTALES CRIA	Jesús Hernández	Guatamare. Edo. Nueva Esparta	(093) 664782
ANATEAM CONSULTORES, C.A.	Silvia Maberti	Caracas	(02) 234 72 82
DOSEL CONSULTORES INTEGRALES	Mayira Quintero	Caracas	(02) 751 50 71
CONSULTORA GUARAPICHE, C.A.	Eduardo Lima	Maturín. Edo. Monagas	(091) 41 05 38
INGENIERIA ORINOCO, C.A.	Jhony Saez	San Carlos. Edo. Cojedes	(058) 33 07 19
INGENIERO MOISES BUSTILLOS SANCHEZ	Miguel Bustillos	Coro. Edo. Falcón	(068) 51 10 66
OFINAGA, C.A.	Asdrúbal Gamboa	Maturín. Edo. Monagas	(091) 41 76 91
AMBIENTE Y CONSTRUCCION AMCO	Ray Manzanilla	Mérida. Edo. Mérida.	(074) 63 75 26
PECMAR, C.A.	David Escalona	Barquisimeto. Edo. Lara	(051) 31 01 89
C.G.S. GESTION INTEGRAL, C.A.	Marlene Rodríguez	Valencia. Edo. Carabobo	014 48 31 44
SERVICIOS AGRICOLAS Y AMBIENTALES QUIVAL	Clarisa Valderrama	Guanare. Edo. Portuguesa	(057) 51 50 51
GRUPO 7, C.A.	Andrés Parima	Porlamar. Edo. Nueva Esparta.	(095) 63 89 07
FUNDAUDO - CENTRO DE ESTUDIOS AMBIENTALES	Eduardo Latuff	Puerto La Cruz. Ed. Anzoátegui	(081) 67 59 95
GRUPO DE EXPERTOS AMBIENTALES (GEA)	José Brito	Maracaibo. Edo. Zulia	(061) 59 45 64 (061) 59 39 84

INVERSIONES NATURAMAR, C.A.	Fermín Albornoz	Porlamar. Edo. Nueva Esparta.	(095) 63 79 93
CAMUDO, C.A.	Francisco Zapata	Cumaná. Edo. Sucre	31 83 84 (02) 261 39 75 (Fax)
ECODESARROLLO 2000, C.A.	Isbelia León	El Tigre. Edo. Anzoátegui	016 20 43 63
INGENIEROS Y CONSULTORES FAJAVEN, S.A.	Ricardo Valbueno	Caracas	(02) 265 22 78 (02) 265 82 87
CONSULTORES TECNICOS AMBIENTALES SAN NICOLAS DE BARI, C.A.	Andrés Azpurua	Caracas	(02) 241 00 25 (02) 241 65 13 (Fax)
ACIFOR	Marco Montoya	San Cristóbal. Edo. Táchira	(076) 55 06 62 (076) 55 75 61
CONSULTORA IMPACTO AMBIENTAL	Omar Loggiodice	Barquisimeto. Edo. Lara	(051) 69 19 37 (02) 943 04 51

CONSULTORA RIO ARO, S.A.	Mirian Velazco	Ciudad Bolívar. Edo. Bolívar	(071) 441719 014 85 27 28
MARIA MOURE	María Moure	Caracas	(02) 572 33 48
RACHALI VENEZOLANA DE PROYECTOS, C.A.	Rafael Fernández	Caracas	(02) 243 72 58 (02) 243 68 76
PROYECTOS Y SERVICIOS DE INGENIERIA (PSI)	Tulio Bastidas	Maracay. Edo. Aragua	(043) 34 15 31
ESTUDIOS CONSERVACIONISTAS, C.A.	Luís Gil	El Tigre. Edo. Anzoátegui	(081) 81 17 09 014 83 83 33
KEFAS GEODATA, C.A.	Luis Valencia	Maracaibo. Edo. Zulia	(061) 52 51 17 (061) 52 95 69 (Fax)
SERVICIOS E INGENIERIA FORESTAL, C.A. (ESINFOR)	José Paredes	Upata. Edo. Bolívar	(088) 21 56 74 (088) 21 01 22 (Fax)
INFRASUR, C.A.	Pablo Colvee	Caracas	(02) 979 44 46 (02) 979 90 66 (Fax)
TORO Y ASOCIADOS CONSULTORES, C.A.	Franz del Gallego	Valencia. Edo. Carabobo	(041) 71 54 68 (041) 71 61 41 (Fax)
TECNOLOGIA Y SERVICIOS AGROPETROLEOS HERNANDEZ, C.A.	Rosaida Ramos	San José de Guanipa. Edo. Anzoátegui	(083) 550594
SILCA, SERVICIOS INTEGRALES LUGO, C.A.	José Lugo	Maturín. Edo. Monagas	(091) 41 48 62 (091) 43 46 66 (Fax)

GRUPO MEDICO MED-INDUST	Nelson Ramos	Caracas	(02) 267 51 58 (02) 265 42 06 (Fax)
PRO-JARDIN, C.A.	José Castillo	Los Teques. Edo. Miranda	(032) 49 255
CONSULTORES D.G.	Dámaso González	Coro. Edo. Falcón	(068) 51 86 23
CONSULTORA AMBIENTAL R.P.	Rafael Pérez	Porlamar. Edo. Nueva Esparta.	(095) 64 41 55 014 996 50 93
DELCAN INTERNATIONAL CORPORATION	Carmen Oropeza	Maracaibo. Edo. Zulia	(061) 98 52 76 (061) 98 52 77 (Fax)
KAIROS, C.A.	Humberto Alliegro	Barcelona. Ed. Anzoátegui	(083) 41 06 62
HAYNES ENVIRONMENT, C.A.	Asela Rodríguez	El Tigre. Edo. Anzoátegui	(081) 81 17 09 014 83 83 33
SELBACH Y ASOCIADOS DE VENEZUELA	Francisco Segovia	Valencia. Edo. Carabobo	(041) 58 71 92 (041) 58 82 50
ASINCRO, C.A. INGENIEROS CONSULTORES	Salvatore Giannattasio	Caracas	(02) 243 21 33 (02) 243 48 13 (Fax)
COAMSUR, C.A.	Alfredo Porras	Tumeremo. Edo. Bolívar	(088) 67 10 57
ECOLOGIA CONSULTORES AMBIENTALES 93, C.A.	Ciro Fuenmayor	Caracas	(02) 263 03 87 (02) 267 51 58

WASTE MANAGEMENT COMPANY	ESPECIALITY	CONTACT PERSON	LOCATION	TEL/FAX
BAYER DE VENEZUELA	Treatment of own wastes	Hector Camero	La Victoria. Edo Aragua	(02) 905 22 55 (02) 951 74 72
C.A. MANTENIMIENTO ELECTRICO COSTEL	Transport and storage of PBC	Guillermo Rey	Valencia. Edo. Carabobo	(041) 34 91 92 (041) 33 64 21
DILEGO	Transport & treatment of Lubricating oils	Gian Carlos Leardi	Los Teques. Edo. Miranda	(032) 32 11 46
ECO-ORCA SOLUCIONES ECOLOGICAS	Transport & treatment of contaminated solvents	Elio Reyes	El Consejo. Edo. Aragua	(02) 564 09 06 (02) 564 25 36
ECOAMBIENTE	Treatment of drilling/mining waste	Michael Light	Maracaibo. Edo. Zulia	(02) 97 34 72 (02) 97 34 73
F Y Z SERVICIO PETROLERO	Transportist	Wilfredo Cayetano		
HOECHST DE VENEZUELA	Treatment of their own wastes	Milton Mazzei		
INDUQUIMICA	Transport and treatment of contaminated organic solvents	Guillermo Torres	Turmero. Edo Aragua	(044) 63 55 65 (044) 63 69 98
INDUSTRIAS QUIMIVEN C.A.	As above	Miguel Satine	Guatire. Edo. Miranda	(036) 44 29 61
INVERPLAST T.C.	As above	Jaime Tarquini	Sta. Teresa del Tuy. Edo. Miranda	(039) 31 16 71 (039) 31 87 42
PROSERVFACICA		Lilia Parisca	Caicara de Maturín. Edo. Monagas	
REMAQUIM S.A.	Transport and treatment of chemical solvents	Jorge Agreda	Maracay. Edo. Aragua	(043) 45 13 21 (02)979 30 11
SERVICIOS COROMOTO C.A.	Transport of used oils	Antonio Castellanos	Valencia. Edo. Carabobo	(041) 34 55 55 (041) 34 30 52
SERVICIOS INDUSTRIALES SERWESTCA	Transport and storage of PBC	Edgar Rodríguez	Maracaibo. Edo. Zulia	(061) 36 04 11 (061) 36 03 50
SOLVEN, C.A.	Contaminated/used solvents	Juan Ravelo	Guacara. Edo. Carabobo	(045) 64 03 73 (045) 64 28 81
TAQUISOL, C.A.	Transport and treatment of paints outside of specifications, resins and used solvents	Hector Mujica	Turmero. Edo. Aragua	(044) 63 89 49

SCHEDULE C

CVG - ENVIRONMENTAL INVESTMENTS 1999 - 2001

Environmental Investments 1999 - 2001

Company	Project / Study
CONACAL	Air and water quality studies
	Construction of a retaining wall for the fuel supply area
BAUXILUM (Alumina operator)	Reconditioning of powder control systems, material handling
	Improvement of alumina collecting systems at the storage warehouse
	Improvement of a sewage water treatment plant
	Caustic soda under seepage control
	Handling of dangerous solid waste
	Dry disposal of mud, study of alternatives for a far-reaching solution
	Study for the construction of a water treatment pilot plant in ponds with the PTS method
BAUXILUM (Alumina operator)	Study for Dyke No. 9 seepage interception
	Implementation of dyke No. 9 seepage interception project system
	Rehabilitation of dyke No. 3 (pond 1), injection of concrete through pipes
	Plant cover protection for rehabilitated terracing

BAUXIVEN (Bauxite operator)	Construction of a grease/solvent separation system at the mine-workshop
	Changing of the dumper's tongs drainage system, El Jobal cars
	Construction of lixiviate collection and treatment, and installation of the sanitary landfill stack
	Construction of Los Pijiguaos water supply system
	Chlorine – gas system at oxidation ponds exit
	Characterisation of atmospheric emissions
	Characterisation of effluents, water courses and sludge treatment plants
	Hiring of the residual oil incineration service
	Reconditioning of the water discharge channel, El Jobal storage yard
	Cleaning of foot of the hill channels

Environmental Investments 1999 - 2001

Company	Project / Study
VENALUM	Improvements of the dust collector for group G / coal plant
	Improvements of the dust collector for group H
	Improvements of the dust collector for group C
	Improvements of the dust collector for group A
	Replacement of the Lurgi I electrofilter stack
	Installation and commissioning of the PMD/coal plant collector
	Procurement of vacuum cleaning systems for milling and compacting areas
	Installation of a dust collector for the jaw crusher
	Installation of an oil trap at the car workshop's washing system
	Reconditioning of the industrial waste disposal yard
	Construction of a warehouse for residual tar storage

Environmental Investments 1999- 2001

Company	Project / Study
ALCASA	Installation of a gaseous emissions control system at the mixers' area
	Installation of a gaseous emissions control system at Baking Furnaces I
	Installation and commissioning of degasifiers at Smelting Furnaces I y II
	Expansion and improvement of dust collecting systems in the "cabos" and coke systems
	Construction of a warehouse for tar storage
CARBONORCA	Evaluation and improvement of dust collectors for milling and compacting areas
	Installation and commissioning of acid water neutralisation systems, green anodes cooling pools
	Sanitation of the residual tar storage yard
	Implementation of the warehouse project for tar storage

Environmental Investments 1999 - 2001
Not included in the Schedule of Improvements approved by MARN

Company	Project / Study
BAUXILUM	Improvement of the electrostatic precipitator's performance
VENALUM	Adequate handling of cathodic waste
	Systematic re-engineering of smoke collection for the Flakt system plants
	Improvements of the rodding induction furnace
	Installation of the K-300 collector

Environmental Investments 1999 - 2001

Company	Project / Study
PROFORCA	Physico-natural characterisation of the Uracoa river basin
	Ichthyological study of the Uracoa river
	Recovery of the Uracoa river upper basin
	- Physico-chemical characterisation of the waters of the Uracoa, Morichal Largo and Areo rivers - Physico-chemical characterisation of CVG-PROFORCA drinking water supply systems. - Sewage characterisation, project of Chaguaramas treatment system - Study of underground water quality in the South of Anzoategui and Monagas states

Environmental Investments 2000 - 2001

Company	Project / Study
CVG- EDELCA	Territorial planning and integral management of the Caroni basin
	Recovery of damaged areas
	Dam border forest management
	Caroni Park ruling plan
	Creation of artificial beaches
	Geographic information system
	Archaeological Rescue
	Limnology and Fishing
	Wildlife Management

Environmental Investments 1998-2003

Company	Project / Study
CVG-FERROMINERA ORINOCO	Water supply for irrigation in Los Barrancos – Las Pailas mines
	Drainage, erosion control and sediment washout system in Ciudad Piar iron mines
	Control system for sewage and effluents in San Isidro workshops area
	Environmental compliance of the Cogollal small lake
	Oil collection system for the heavy equipment workshop, P. M. H. Puerto Ordaz
CVG-FERROMINERA ORINOCO	Treatment plant for domestic and industrial waste waters, Puerto Ordaz
	Improvements of the drying plant's dust collecting system, Puerto Ordaz
	Improvements in the dust control systems of OPCO, C. A. feeding pellet pit (FS 5402) and main stockpile pellets pit (FE 8040), Puerto Ordaz
	Dust control system for Puerto Ordaz industrial area
	Improvements in the temporary disposal of polychlorinated biphenyl converters
	Program for the handling of industrial dangerous surplus materials that can be reused and commercialised at CVG-FERROMINERA.
	Program for the control of residual oil in Ciudad Piar (iron mines) and Puerto Ordaz (P.M. H.)

Environmental Investments 1999 - 2001

Company	Project / Study
CVG - MINERVEN	Characterisation of the Caratal and El Peru plant emissions
	Study of environmental permitting for CVG- MINERVEN concessions
	Construction of the cyanide addition system for El Peru plant
	Activation of the tailings dam II
	Recovery of the tailings dam I
	Recovery of affected areas in Mina Union

Environmental Investments 1999 - 2001

Company	Project / Study
SIDOR	Compliance of industrial and sanitary effluents, original plant
	Plan for sludge handling and disposal, and optimisation of water recirculation systems
	System for receiving and treating residual water from the dock
	Decrease of oil concentration in effluents
	Compliance of smoke interception systems for the slab and billet steel mills
	Design and construction of a storing centre for by-products with reuse, recycling & commercialisation potential
	Sanitation of the current landfill and other affected areas
	Evaluation of options for final disposal of toxic and non-toxic waste
	Sanitation of contaminated areas and construction of a pit for disposal of the sedimentation pond sludge
	Design and construction of a temporary storage site for toxic waste.

SCHEDULE D
MINISTRY EXPENDITURES

- MINISTRY OF AGRICULTURE AND RAISING (MINISTERIO DE AGRICULTURA Y CRÍA MAC). BUDGET OF SPENDS YEAR 1996

- MINISTRY OF TRANSPORT AND COMMUNICATIONS (MINISTERIO DE TRANSPORTE Y COMUNICACIONES MTC). BUDGET OF SPENDS YEAR 1996

- MINISTRY OF THE ENVIRONMENT AND NATURAL RESOURCES (MINISTERIO DEL AMBIENTE Y DE LOS RECURSOS NATURALES RENOVABLES MARNR). BUDGET OF SPENDS YEAR 1996

- MINISTRY OF URBAN DEVELOPMENT (MINISTERIO DE DESARROLLO URBANO MINDUR). BUDGET OF SPENDS YEAR 1996

- MINISTRY OF AGRICULTURE AND RAISING (MINISTERIO DE AGRICULTURA Y CRÍA MAC). BUDGET OF SPENDS YEAR 1999

- MINISTRY OF TRANSPORT AND COMMUNICATIONS (MINISTERIO DE TRANSPORTE Y COMUNICACIONES MTC). BUDGET OF SPENDS YEAR 1999

- MINISTRY OF THE ENVIRONMENT AND THE RENEWABLE NATURAL RESOURCES (MINISTERIO DEL AMBIENTE Y DE LOS RECURSOS NATURALES MARNR). BUDGET OF SPENDS YEAR 1999

- MINISTRY OF URBAN DEVELOPMENT MINISTERIO DE DESARROLLO URBANO (MINDUR). BUDGET OF SPENDS YEAR 1999

- MINISTRY OF PRODUCTION AND COMMERCE MINISTERIO DE PRODUCCIÓN Y COMERCIO. BUDGET OF SPENDS YEAR 2000 (US $)

- INVESTMENTS SUMMARY YEARS 1996 AND 1999

MINISTRY OF AGRICULTURE AND ANIMAL HUSBANDRY
(MINISTERIO DE AGRICULTURA Y CRÍA MAC)
BUDGET (OF EXPENDITURES) YEAR 1996

Assignations to organisms of the public sector	**Million of Bs**
Fondo Nacional de Investigaciones Agropecuarias (FONAIAP)	8.012,3
Instituto Agrario Nacional (IAN)	3.084,0
Procuraduría Agraria Nacional (PAN)	310,0
Fundación para la Capacitación e investigación Aplicada a la Reforma Agraria	1.767,0
Fondo Nacional del Cacao (FONCACAO)	36,9
Fondo Nacional del Café (FONCAFE)	633,8
Instituto Agrícola y Pecuario (ICAP)	7832,5
Autoridad Unica de Area para el Proyecto de apoyo a Pequeños Productores en el Estado Sucre	1.183,8
Servicio Autónomo de Sanidad Agropecuaria (SASA)	1869,8
Servicio Autónomo de los Recursos Pesqueros y Acuícolas	119,2
CADAFE	2.302,8

Investment in works	**Millions of Bs**
Control of projects with international financing. Plan of Investment for the transformation of the farming sector	7.650,5
Watering works, draining, rural cadastre and agricultural roads	5.347,7
Rural electrification	2.302,8
Integral development of low irrigation areas	1.925,9
Irrigation infrastructure, draining and cleaning works	1.925,9

MINISTRY OF TRANSPORT AND COMMUNICATIONS *(MINISTERIO DE TRANSPORTE Y COMUNICACIONES MTC)* BUDGET (OF EXPENDITURES) YEAR 1996

Assignations to organisms of the public sector	**Million of Bs**
Fundación Fondo Nacional de Transporte Urbano	9.790,0
C.A. Metro de Caracas	22.307,7
Instituto Autónomo Ferrocarriles del Estado	9.603,0

Investments in works		
TRANSPORT BY WATER	Investments	**Million of Bs.**
AEREAL TRANSPORT	Airports	23,0
	Security in Aeronautic operations	536,1
TERRESTRIAL TRANSPORT	Investments	264,5
TERRESTRIAL ROADS	Studies and projects	133,0
	Freeways	380,5
	Urban ways	11.163,0
	Roads	7.485,0
	Conservation	4.794,8
	Programs MTC - BID	16.152,1
AGRICULTURAL ROADS	Studies and projects	463,0
	Regional agricultural roads	80,7
	Local agricultural roads	1.737,8
	Agricultural roads of country's settlements	4.387,3
	Agricultural roads of irrigation systems	1.694,5
		681,6

MINISTRY OF THE ENVIRONMENT AND NATURAL RESOURCES (*MINISTERIO DEL AMBIENTE Y DE LOS RECURSOS NATURALES RENOVABLES MARNR)* BUDGET (OF EXPENDITURES) YEAR 1996

Assignations to organisms of the public sector	Million of Bs.
Instituto Nacional de Parques (INPARQUES)	4.171,8
Instituto para el Control y la Conservación de la Cuenca del Lago de Maracaibo (ICLAM)	564,0
Servicios Ambientales del MARNR (SAMARNR)	12.203,9
Servicio Autónomo para la Protección, Restauración, Fomento y Racional Aprovechamiento de la Fauna Silvestre y Acuática del País (PROFAUNA)	250,0
Servicio Autónomo de Geografía y Cartografía Nacional (SAGECAN)	2.528,7
Servicio Autónomo Forestal Venezolano (SEFORVEN)	352,6
Servicio Autónomo para el Desarrollo Ambiental del Estado Amazonas (SADAMAZONAS)	339,9
Servicio Autónomo Ambiental Guayana	287,9
Servicio Autónomo de Conservación de Suelos y Cuencas Hidrográficas	1.786,0
Autoridad Unica de Area del Parque Nacional Archipiélago Los Roques	50,0
Autoridad Unica de Area Agencia de Cuenca del Lago de Valencia	338,0
Autoridad Unica de Area Agencia de Cuenca del Río Tuy	351,1

Investments in works	Million of Bs.
Environmental information	26,3
Environmental ordering	8,1
Hydraulic works and environmental infrastructure	43.125,6

MINISTRY OF URBAN DEVELOPMENT (*MINISTERIO DE DESARROLLO URBANO MINDUR*) BUDGET (OF EXPENDITURES) YEAR 1996

Assignations to Organisms of the public sector	Million of Bs.
Instituto Nacional de la Vivienda (INAVI)	50.830,1
Fondo Nacional de Desarrollo Urbano (FONDUR)	39.351,5
Government of the Distrito Federal	3.078,8
Gobernación del Estado Amazonas	895,3
Gobernación del Estado Anzoátegui	1.749,4
Gobernación del Estado Apure	1.139,3
Gobernación del Estado Aragua	2.027,2
Gobernación del Estado Barinas	1.287,1
Gobernación del Estado Bolívar	1.792,5
Gobernación del Estado Carabobo	2.381,1
Gobernación del Estado Cojedes	1.029,5
Gobernación del Estado Delta Amacuro	925,9
Gobernación del Estado Falcón	1.472,6
Gobernación del Estado Guárico	1.355,2
Gobernación del Estado Lara	2.103,6
Gobernación del Estado Mérida	1.441,9
Gobernación del Estado Miranda	2.823,8
Gobernación del Estado Monagas	1.335,6
Gobernación del Estado Nueva Esparta	1.116,3
Gobernación del Estado Portuguesa	1.448,5
Gobernación del Estado Sucre	1.558,0
Gobernación del Estado Táchira	1.694,1

Gobernación del Estado Trujillo	1.360,8
Gobernación del Estado Yaracuy	1.244,6
Gobernación del Estado Zulia	3.210,7

Investment in works	**Million of Bs.**
Projects and inspection of edifications	360,0
Construction of edifications medical-attendance	4.418,0
Construction of edifications for junior and senior school	3.303,2
Construction of edifications for superior education, sciences and technology	3.834,9
Construction of edifications for the culture	1.020,6
Construction of sportive edifications	4.685,0
Construction of edifications for security and defense	4.546,0
Construction of edifications various	1.725,7
Construction of edifications of support to the production	379,3

MINISTRY OF AGRICULTURE AND ANIMAL HUSBANDRY
(*MINISTERIO DE AGRICULTURA Y CRÍA MAC*). BUDGET (OF EXPENDITURES) YEAR 1999 (US$)

Studies, projects and construction	**Works of the agricultural sector**	**9.424.414**
Inspection of drainage works	Plan of investments for the transformation of the agricultural sector (PITSA)	147.965
Agricultural health	Program of animal and vegetal health	3.367.037
	Plan of investments for the transformation of the agricultural sector (PITSA)	6.013.481
Fishing resources	Financing of the fishing	1.644.061
CIARA	Program of agricultural extension	6.293.465
	Project of development of poor communities	3.671.188
CADAFE	Plan of investments for the transformation of the agricultural sector	7.782.820
FONDO DE CREDITO AGROPECUARIO	Financing of agricultural producers	32.478.422
INSTITUTO DE CREDITO AGRICOLA Y PECUARIO	Financing of small rural producers	7.398.274
	Project of support to small producers and fishers of the semi-arid zone of Lara and Falcón	4.721.743
GOBERNACIONES	Program of strategic food	22.923.305

MINISTRY OF TRANSPORT AND COMMUNICATIONS (*MINISTERIO DE TRANSPORTE Y COMUNICACIONES MTC)* BUDGET (OF EXPENDITURES) YEAR 1999

Studies and projects	Investments studies	164.406
Enlargement, improves and reparations in airports	Barcelona, Santa Elena de Uairen, Coro, Higuerote and others	3.681.052
Studies and projects	Lands, topography, pavement, etc. In airports	257.394
Inspection of works	Airports non specified	194.098
Works constructions	Airports of Puerto Ayacucho y San Tomé	417.460
Roads studies and projects	Perimetral de Barcelona, Palmarito - Boca de Anare, Autopista Centro Occidental, Distribuidor Guarapiche,	1.343.198

	otros.	
Construction of interurban roads	Freeway José Antonio Páez, Freeway Valera - Trujillo, Freeway Centro Occidental	5.589.807
Construction of urban roads	Caracas, Barquisieto, Charallave	7.644.883
Construction of roads	San Fernando - Puerto Páez	411.015
Vial conservation	Not specified	1.875.873
Studies and projetcs	Norms of agricultural roads	164.406
Emergency spends	Agricultural regional roads in all the country	689.782
Emergency spends	Agricultural regional roads in all the country	3.142.524
Agricultural roads	Plan of investments for the transformation of the agriculturalsector	8.818.742
FUNDACION FONTUR	Rehabilitation program of roads, bridges and tunnels.	201.390.875

MINISTRY OF THE ENVIRONMENT AND THE RENEWABLE NATURAL RESOURCES *(MINISTERIO DEL AMBIENTE Y DE LOS RECURSOS NATURALES MARNR)* BUDGET (OF EXPENDITURES) YEAR 1999

Projects and studies	Design of training programs in environmental management	24.661
	Conservation and handling of basins in the states Lara, Trujillo and Yaracuy	4.270.843
	Hydrometereologic studies	43.124
	Support to the national center of the fitogenetic resources	8.056
	Plans and other studies of ordination of the territory	207.859
	Technical norms	8.220
Construction	Works inspection	1.972.873
	Canalization, aqueducts, reception and conduction works, cleaning and others	11.818.397
Projects and studies	Studies, projects and basic engineering for diverse hydraulic works.	3.199.478
Operation and maintenance	Diverse dams	2.712.700
Project Treatment system of residual waters in the Valencia's lake basin	Conservation of the Valencia's Lake basin	328.812
	Study for the integral cleaning of the Valencia's lake	575.421
	Inspection of works for the integral cleaning of te Valencia's Lake	986.436
	Construction of works for the integral cleaning of the Valencia's lake	20.207.037
Studies and projects	Enviromental quality	17.756
Project Orinoco Apure	Studies, construction and various maintenances	2.075.775
INPARQUES	Program of parks management	14.684.751
ICLAM	Program of integral cleaning of the Maracaibo's lake basin	16.782.573
C.A. HIDROLOGICA DE VENEZUELA	Rehabilitation of the drinkable water system in the State Monagas	17.831.484
	Program of environmental, water and sewing cleaning	63.983.559

MINISTRY OF URBAN DEVELOPMENT (*MINISTERIO DE DESARROLLO URBANO MINDUR)*
BUDGET (OF EXPENDITURES) **YEAR 1999**

Studies and projects	Plans of urban ordering and others plans	327.267
Construction	Construction of edification and other installations	13.645.705
	Urban equipment	520.415
	Construction, enlargement and improvement of edifications medical - attendance	5.844.636
	Construction and reparation of edifications for junior and senior school	493.218
	Construction and reparation of edifications for superior education, science and technology	5.260.995
	Construction and reparation of edifications for the culture	493.218
	Construction and reparation of edifications for the security and defense	1.167.283
	Construction and reparation and various edifications	386.354

MINISTRY OF PRODUCTION AND TRADE **(*MINISTERIO DE PRODUCCIÓN Y COMERCIO)***
BUDGET (OF EXPENDITURES) **YEAR 2000 (US $)**

Studies and projects for investment in real actives	Agricultural policy, rural development, development of agroproductives chains, program of strategic foods.	15.758
Studies and projects	Agricultural policy	48.485
Conservation, enlargement and improves of works for rural development	Rehabilitation and consolidation of big and medium watering systems.	6.795.455
	Drainage works	4.224.242
	Reparation of agricultural roads	8.154.545
Studies and projects	Development of agroproductive chains	65.152
IAN	Program of Frontier development	7.575.758
	Program of lands affectation	30.303.030
	Program of Aboriginal communities	7.575.758
	Program of rural cadastre	4.228.788
	Consolidation of agricultural communities	6.336.364
	Development of agricultural centers	4.224.242
Agricultural health	Program of animal and vegetal health	2.718.182
Fishing resources	Financinf of fishing	757.576
CIARA	Program of agricultural extension	14.680.303
	Project of development of poor communities	3.914.242
CADAFE	Project of rural electrification	6.795.455
CORPOINDUSTRIA	Policy of assistance to the PYMI	8.448.485
FONDO DE CREDITO AGROPECUARIO	Financing of agricultural producers	17.058.939
	Project of Support to small producers and fishers of the semiarid zone of Lara and Falcon	4.890.152
GOBERNACIONES	Program of strategic foods	20.595.606

INVESTMENTS SUMMARY YEAR 1996

ORGANISM	Investment (Million of Bs)		
	Total	Environment	%
Ministerio de Agricultura y Cría (MAC)			
Assignation to organisms	59,37	1,78	3
Investments on works	20,94	3,14	15
Ministerio de Transporte y Comunicaciones (MTC)			
Assignation to organisms	91,19	2,74	3
Investments on works	109,29	16,39	15
Ministerio del Ambiente y de los Recursos Naturales (MARN)			
Assignation to organisms	50,78	2,54	5
Investments on works	94,38	94,38	100
Ministerio de Desarrollo Urbano (MINDUR)			
Assignation to organisms	281,33	8,44	3
Investments on works	53,08	7,96	15

YEAR 1999

Organism	Investment (million of Bs)		
	Total	Environment	%
Ministerio de Agricultura y Cría (MAC)			
Assignation to organisms plus investment in works	105.866.173	10.586.617	10
Ministerio de Transporte y Comunicaciones (MTC)			
Assignation to organisms plus investment in works	235.785.516	23.578.552	10
Ministerio del Ambiente y de los Recursos Naturales (MARN)			
Assignation to organisms plus investment in works	161.729.815	80.864.908	50
Ministerio de Desarrollo Urbano (MINDUR)			
Assignation to organisms plus investment in works	28.139.092	2.813.909	10